

COMMODITY FUTURES TRADING COMMISSION

17 CFR Part 38

RIN 3038-AF04

Electronic Trading Risk Principles

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Commodity Futures Trading Commission (“CFTC” or “Commission”) is proposing amendments to its regulations to address the potential risk of a designated contract market’s (“DCM”) trading platform experiencing a disruption or system anomaly due to electronic trading. The proposed regulations consist of three principles applicable to DCMs concerning: the implementation of exchange rules applicable to market participants to prevent, detect, and mitigate market disruptions and system anomalies associated with electronic trading; the implementation of exchange-based pre-trade risk controls for all electronic orders; and the prompt notification of the Commission by DCMs of any significant disruptions to their electronic trading platforms. The proposed regulations are accompanied by proposed acceptable practices (“Acceptable Practices”), which provide that a DCM can comply with these principles by adopting and implementing rules and risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions and system anomalies associated with electronic trading.

DATES: Comments must be received on or before [INSERT the later of August 24, 2020 or 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by RIN 3038-AF04, by any of the following methods:

- *CFTC Comments Portal:* <https://comments.cftc.gov>. Select the “Submit Comments” link for this rulemaking and follow the instructions on the Public Comment Form.
- *Mail:* Send to Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW, Washington, DC 20581.

- *Hand Delivery/Courier:* Follow the same instructions as for Mail, above.

Please submit your comments using only one of these methods. Submissions through the CFTC Comments Portal are encouraged.

All comments must be submitted in English or, if not, accompanied by an English translation. Comments will be posted as received to <https://comments.cftc.gov>. You should submit only information that you wish to make available publicly. If you wish the Commission to consider information that you believe is exempt from disclosure under the Freedom of Information Act (“FOIA”), a petition for confidential treatment of the exempt information may be submitted according to the procedures established in 17 CFR 145.9.

The Commission reserves the right, but shall have no obligation, to review, pre-screen, filter, redact, refuse, or remove any or all of your submission from <https://comments.cftc.gov> that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the rulemaking will be retained in the public comment file and

will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under FOIA.

FOR FURTHER INFORMATION CONTACT: Marilee Dahlman, Special Counsel, *mdahlman@cftc.gov* or 202-418-5264; Joseph Otchin, Special Counsel, *jotchin@cftc.gov* or 202-418-5623, Division of Market Oversight; Esen Onur, *eonur@cftc.gov* or 202-418-6146, Office of the Chief Economist; in each case at the Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW, Washington, DC 20581.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction

- A. Purpose of Electronic Trading Risk Principles
- B. Basic Structure of Electronic Trading Risk Principles

II. Regulatory Approaches to Addressing Market Disruptions and System Anomalies Associated with Electronic Trading Activities

- A. Examples of DCM Responses to Disruptions and Anomalies Associated With Electronic Trading Activities
- B. NFA Efforts to Prevent Market Disruptions and System Anomalies
- C. CFTC Regulations Governing DCM Operations and Risk Controls
- D. Prior Commission Proposals and Requests for Comments on Electronic Trading
- E. Market Participants' Discussions of Best Practices

III. Risk Principles

- A. Electronic Trading, Electronic Orders, Market Disruption, and System Anomalies
- B. Proposed Regulation 38.251(e)—Risk Principle 1
- C. Proposed Regulation 38.251(f)—Risk Principle 2
- D. Proposed Regulation 38.251(g)—Risk Principle 3

IV. Related Matters

- A. Regulatory Flexibility Act
- B. Paperwork Reduction Act
 - 1. OMB Collection 3038-0093 – Provisions Common to Registered Entities
 - 2. OMB Collection 3038-0052 – Core Principles and Other Requirements for DCMs
- C. Cost-Benefit Considerations
 - 1. Introduction
 - 2. Summary of Proposal
 - 3. Costs
 - 4. Benefits
 - 5. 15(a) Factors
- D. Antitrust Considerations

I. Introduction

A. Purpose of Electronic Trading Risk Principles

The Commission is proposing a set of principles for DCMs to address the prevention, detection, and mitigation of market disruptions and system anomalies associated with the entry of electronic orders and messages into DCMs' electronic trading platforms ("Risk Principles"). Such disruptions or anomalies may negatively impact the proper functioning of the trading platforms and/or the ability of other market participants to trade and manage their own risk. These disruptions and anomalies can arise from, among other things, excessive messaging caused by malfunctioning systems, "fat finger" orders or erroneous messages manually entered that result in unintentionally large or off-price orders, and loss of connection between an order management system and the trading platform.

The Commission, DCMs, and market participants have an interest in the effective prevention, detection, and mitigation of market disruptions and system anomalies associated with electronic trading activities. The Commission believes that DCMs are addressing most, if not all, of the electronic trading risks currently presented to their trading platforms. DCMs have developed pre-trade risk controls, including messaging throttles, order size maximums, and "heartbeat" messages confirming connectivity, to address an array of risks posed by electronic trading. DCMs also conduct due diligence and testing requirements before participants can utilize certain connectivity methods that could present risks for market disruptions and system anomalies. DCMs have developed many of these risk mitigation measures in response to real-world events, including actual or potential disruptions to their markets, as well as in response to existing rules, such as

those promulgated pursuant to DCM Core Principle 4 and codified in part 38 of the Commission's regulations.

As discussed more fully below in Sections I.B and II.C, in some areas, these proposed Risk Principles are covered by existing Commission regulations, including regulations related to the prevention of market disruptions and financial risk controls. The Commission believes that because DCMs have developed robust and effective processes for identifying and managing risks, both because of their incentives to maintain markets with integrity as well as for purposes of compliance with existing Commission regulations, the Risk Principles may not necessitate the adoption of additional measures by DCMs. The Commission further believes that the proposed Risk Principles will help ensure that DCMs continue to monitor these risks as they evolve along with the markets, and make reasonable modifications as appropriate. The Commission emphasizes that the proposed Risk Principles reflect a flexible framework under which DCMs can adapt to evolving technology and markets.

B. Basic Structure of Electronic Trading Risk Principles

The Commission proposes the Risk Principles to set forth its expectation that DCMs will adopt rules and implement adequate risk controls designed to address the potential threat of market disruptions and system anomalies associated with electronic trading. In recent years, electronic trading has become increasingly prevalent on DCM markets. The Commission's Office of the Chief Economist ("OCE") has found that over 96 percent of all on-exchange futures trading occurred on DCMs' electronic trading

platforms.¹ Of the trading on electronic trading platforms, the CFTC’s Market Intelligence Branch (“MIB”) in the Division of Market Oversight (“DMO”) found a consistent increase in the percentage of trading that was identified as “automated” relative to “manual.”²

At the same time, DCM electronic trading platforms have been faced with actual and potential disruptions unintentionally caused by market participants electronically accessing those systems. Such instances highlight the risks that DCMs face from the interaction of their own systems with those of market participants. As discussed below, DCMs have implemented a variety of controls and procedures to mitigate the market disruptions and system anomalies associated with market participants’ electronic trading.

The Risk Principles supplement existing Commission regulations governing DCMs by directly addressing certain requirements in DCM Core Principle 4 and its implementing regulations, namely Commission regulations 38.251 and 38.255.³ First, the Risk Principles provide for prospective action by DCMs to take steps to prevent market disruptions and systems anomalies, building on the Commission regulation 38.251 requirements to conduct real-time monitoring and resolve conditions that are disruptive to the market. Second, the Risk Principles explicitly focus on disruptions or system anomalies associated with electronic trading. Existing Commission regulations focus on

¹ Haynes, Richard & Roberts, John S., “Automated Trading in Futures Markets – Update #2” at 8 (Mar. 26, 2019), available at https://www.cftc.gov/sites/default/files/2019-04/ATS_2yr_Update_Final_2018_ada.pdf.

² Staff of the MIB, “Impact of Automated Orders in Futures Markets” (Mar. 2019), available at <https://www.cftc.gov/MarketReports/StaffReports/index.htm>. MIB also reported that there was no correlation between the increase in automated trading activity in these markets and any increase in volatility. Regardless, the issues addressed by the Risk Principles go beyond the discernable price movements of markets and into the underlying functionality.

³ See generally 17 CFR 38.251, 38.255.

market disruptions more generally, including for example those caused by sudden price movements.

The Risk Principles overlap to some extent with Commission regulation 38.255, which requires that DCMs establish and maintain risk control mechanisms to prevent and reduce the potential risk of price distortions and market disruptions, including, but not limited to, market restrictions that pause or halt trading in market conditions prescribed by the DCM. Although Commission regulation 38.255 and the risk controls described in Appendix B's additional guidance on Core Principle 4 discuss in part market disruptions associated with sudden price movements, the Commission believes that the risk controls required by that regulation could also extend more broadly to risks associated with electronic trading. Nevertheless, in light of the evolution of electronic trading, the Commission believes it is beneficial to provide further clarity to DCMs about their obligations to address certain situations associated with electronic trading. To that end, these Risk Principles address market disruptions and system anomalies associated with electronic trading.

As discussed in Section III below, such market disruptions or system anomalies can be the result of excessive messaging or the loss of connection between an order management system and the trading platform. Such events could impact the systems accepting messages or matching trades at the DCM. These events could have significant and negative impacts on market participants and the integrity of the market as a whole. The Commission believes that specifically identifying the need to address market disruptions or system anomalies will improve market resiliency and price discovery.

The Commission believes that a DCM's continued implementation of risk controls is important to ensure the integrity of Commission-regulated markets and to foster market participants' confidence in the transactions executed on DCM platforms. This proposal is based largely on existing DCM and industry practices, including industry guidance and best practices followed by regulated entities and market participants. It also draws from comments provided to the Commission in response to proposed Regulation Automated Trading ("Regulation AT"), which includes proposed rulemakings issued in 2015⁴ and 2016⁵ described more fully below. The Risk Principles attempt to balance the need for flexibility in a rapidly-changing technological landscape with the need for an unambiguous regulatory requirement that DCMs establish rules governing electronic orders, as well as on market participants themselves, to prevent and mitigate market disruptions and system anomalies associated with electronic trading activities.

The Commission emphasizes that the Risk Principles would not create any form of strict liability for the exchanges in the event that such disruptions or anomalies occur notwithstanding such rules or controls. Nor would the Risk Principles require any specifically defined set of rules or risk controls. As provided in the proposed Acceptable Practices for implementing the Risk Principles, DCMs shall have satisfied their requirements under the Risk Principles if they have established and implemented rules and pre-trade risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. The Commission interprets "reasonably designed" to mean that a DCM's rules and risk

⁴ Regulation Automated Trading, 80 FR 78824 (Dec. 17, 2015).

⁵ Regulation Automated Trading, 81 FR 85334 (Nov. 25, 2016).

controls are objectively reasonable. DCM rules and pre-trade risk controls that are not “reasonably designed” would not satisfy the Acceptable Practices and therefore may be subject to Commission action. The Commission will monitor DCMs to ensure compliance with the Risk Principles.

As explained below, by separate action, the Commission is voting on whether to withdraw the proposed rule known as Regulation AT. Regulation AT includes, among other provisions, requirements for DCMs to implement pre-trade risk controls. The Risk Principles proposed here are intended to accomplish a similar goal as that aspect of Regulation AT, albeit through a more principles-based approach. The Risk Principles in this NPRM apply only to DCMs.⁶

II. Regulatory Approaches to Addressing Market Disruptions and System Anomalies Associated with Electronic Trading Activities

A. Examples of DCM Responses to Disruptions and Anomalies Associated With Electronic Trading Activities

As explained more fully in Section III below, the Commission’s proposal seeks, in part, to explicitly recognize existing DCM processes that have evolved to minimize the frequency or severity of market disruptions or system anomalies caused by malfunctioning automated trading systems. Many DCMs have implemented exchange rules and controls to prevent, detect, and mitigate these disruptions and anomalies.⁷

⁶ The Commission will continue to monitor whether Risk Principles of this nature may be appropriate for other markets such as swap execution facilities or foreign boards of trade.

⁷ These measures are discussed more fully in Section III.B and III.C. They include, for example, DCM order cancellation systems, system testing requirements on participants, and messaging controls.

DCMs have actively policed electronic trading activities that may be detrimental to the DCM. For example, they have addressed excessive messaging into their trading platforms through monitoring of compliance with DCM-established messaging thresholds and increased penalties for violations of those thresholds.

In 2011, CME Group, Inc. (“CME Group”)⁸ fined a high-frequency firm for computer malfunctions, including one that prompted selling of e-mini Nasdaq 100 Index futures on CME, and another that caused a sudden increase in oil prices on NYMEX.⁹ In 2014, CME Group fined several proprietary trading firms for violations related to problems with automated trading systems. In one instance, a firm sent more than 27,000 messages in less than two seconds, resulting in the exchange initiating a port closure¹⁰ and a failure of a Globex gateway.¹¹

More recently, in September and October 2019, CME Group experienced a significant increase in messaging in the Eurodollar futures market.¹² According to reports, the volume of data generated by activity in Eurodollar futures increased

⁸ CME Group collectively refers to the Chicago Mercantile Exchange (“CME”), the Board of Trade of the City of Chicago, Inc. (“CBOT”), the New York Mercantile Exchange, Inc. (“NYMEX”), and the Commodity Exchange, Inc.

⁹ Spicer, Jonathan, “High-frequency firm fined for trading malfunctions,” *Reuters* (Nov. 25, 2011), available at <https://www.reuters.com/article/us-cme-infinium-fine/high-frequency-firm-fined-for-trading-malfunctions-idUSTRE7AO1Q820111125>.

¹⁰ CME Group may close the port for a trading session if it detects trading behavior that is potentially detrimental to its markets. Information relating to its port closure policy is available at <https://www.cmegroup.com/globex/develop-to-cme-globex/portclosure-faq.html>.

¹¹ Polansek, Tom, “CME Group fines three firms for automated trading violations,” *Reuters* (Dec. 19, 2014), available at <https://www.reuters.com/article/cme-violations-automated/cme-group-fines-three-firms-for-automated-trading-violations-idUSL1N0U31HF20141219>.

¹² See Osipovich, Alexander, “Futures Exchange Reins in Runaway Trading Algorithms,” *Wall Street Journal* (Oct. 29, 2019), available at <https://www.wsj.com/articles/futures-exchange-reins-in-runaway-trading-algorithms-11572377375>.

tenfold.¹³ CME Group responded, in part, by changing its rules to increase penalties for exceeding certain messaging thresholds and cutting off connections for repeat violators.¹⁴

Finally, in March 2020, NYMEX fined a member for incidents in which the member, for one minute, sent a large volume of non-actionable messages resulting in latencies of over one second to other market participants.¹⁵ Later, the same member sent another large volume of non-actionable messages, causing latencies of over one second to a larger group of market participants.¹⁶ The first disruption was caused by a malfunction in the member's software responsible for disconnecting after a certain volume of order cancellations.¹⁷ The second disruption was triggered when the system was taken out of production.¹⁸ Accordingly, NYMEX found that the member had violated exchange rules prohibiting acts detrimental to the exchange and requiring diligent supervision of employees and agents.¹⁹

B. NFA Efforts to Prevent Market Disruptions and System Anomalies

In June 2002, the National Futures Association (“NFA”) issued Interpretive Notice 9046 (“Interpretative Notice”), subsequently revised in December 2006, relating

¹³ *Id.*

¹⁴ See CME Group Globex Messaging Efficiency Program, available at <https://www.cmegroup.com/globex/trade-on-cme-globex/messaging-efficiency-program.html>.

¹⁵ See Notice of Disciplinary Action, NYMEX Case No. 18-0989-BC (Mar. 16, 2020), available at <https://www.cmegroup.com/tools-information/advisorySearch.html#cat=advisorynotices%3AAdvisory+Notices%2FMarket+Regulation+Advisories&pageNumber=1&subcat=advisorynotices%3AAdvisory+Notices%2FMarket+Regulation+Advisories%2FBusiness-Conduct-Committee&searchLocations=%2Fcontent%2Fcmegroup%2F>.

¹⁶ See *id.*

¹⁷ See *id.*

¹⁸ See *id.*

¹⁹ See *id.*

to the supervision of automated order routing systems (“AORSs”).²⁰ The Interpretative Notice applies to all NFA members that employ AORSs, and provides binding guidance to, among other things, implement firewalls, conduct testing, and perform capacity reviews, as well as consider implementation of pre-trade controls. In light of the changes to electronic trading since 2006, the Commission encourages NFA to evaluate whether additional supervisory guidance should be provided to its members.

C. CFTC Regulations Governing DCM Operations and Risk Controls

Several existing CFTC regulations in part 38 generally govern the DCM’s role in monitoring for, and mitigating the effects of, market disruptions and system anomalies.

For example, under DCM Core Principle 2, Commission regulation 38.157 requires a DCM to conduct real-time market monitoring of all trading activity on its electronic trading platform(s) to identify disorderly trading and any market or system anomalies.²¹ Regulations under Core Principle 4 provide additional requirements for DCMs. Specifically, Commission regulation 38.251(c) requires each DCM to demonstrate an effective program for conducting real-time monitoring of market conditions, price movements, and volumes, in order to detect abnormalities and, when necessary, to make a good-faith effort to resolve conditions that are, or threaten to be, disruptive to the market. However, these requirements address real-time monitoring and after-the-fact accountability, as opposed to the anticipatory nature of the Risk Principles.

In addition, Commission regulation 38.255 requires DCMs to establish and maintain risk control mechanisms to prevent and reduce the potential risk of price

²⁰ NFA, Interpretive Notice 9046, “Supervision of the Use of Automated Order-Routing Systems” (Dec. 12, 2006), available at <https://www.nfa.futures.org/rulebook/rules.aspx?RuleID=9046&Section=9>.

²¹ 17 CFR 38.157.

distortions and market disruptions, including, but not limited to, market restrictions that pause or halt trading in market conditions prescribed by the DCM.²²

The Commission also has adopted risk control requirements for exchanges that provide direct electronic access to market participants. Commission regulation 38.607 requires DCMs that permit direct electronic access to have effective systems and controls reasonably designed to facilitate a futures commission merchant's ("FCM's") management of financial risk.²³ In addition, existing part 38 regulations on DCM system safeguards promulgated under DCM Core Principle 20 (in particular, Commission regulations 38.1050 and 38.1051) focus on whether DCMs' internal systems are operating correctly.²⁴

²² 17 CFR 38.255. The Commission has provided Guidance and Acceptable Practices on these regulatory provisions.

The Core Principle 4 Guidance provides that the detection and prevention of market manipulation, disruptions, and distortions should be incorporated into the design of programs for monitoring trading activity. Monitoring of intraday trading should include the capacity to detect developing market anomalies, including abnormal price movements and unusual trading volumes, and position-limit violations. The DCM should have rules in place that allow it broad powers to intervene to prevent or reduce market disruptions. Once a threatened or actual disruption is detected, the DCM should take steps to prevent the disruption or reduce its severity. *See* Appendix B to Part 38—Guidance on, and Acceptable Practices in, Compliance with Core Principles, Core Principle 4, paragraph (a).

The Core Principle 4 Acceptable Practices also provide that an acceptable program for preventing market disruptions must demonstrate appropriate trade risk controls, in addition to pauses and halts. Such controls must be adapted to the unique characteristics of the markets to which they apply and must be designed to avoid market disruptions without unduly interfering with that market's price discovery function. The DCM may choose from among controls that include: pre-trade limits on order size, price collars or bands around the current price, message throttles, and daily price limits, or design other types of controls. Within the specific array of controls selected, the DCM also must set the parameters for those controls, as long as the types of controls and their specific parameters are reasonably likely to serve the purpose of preventing market disruptions and distortions. If a contract is linked to, or is a substitute for, other contracts, either listed on its market or on other trading venues, the DCM must, to the extent practicable, coordinate its risk controls with any similar controls placed on those other contracts. If a contract is based on the price of an equity security or the level of an equity index, such risk controls must, to the extent practicable, be coordinated with any similar controls placed on national security exchanges. *Id.* at paragraph (b)(5).

²³ 17 CFR 38.607.

²⁴ 17 CFR 38.1050 and 38.1051.

D. Prior Commission Proposals and Requests for Comments on Electronic Trading

In 2013, the Commission published an extensive Concept Release on Risk Controls and System Safeguards for Automated Trading Environments (“Concept Release”), which was open for public comment.²⁵ On December 17, 2015, the Commission published a notice of proposed rulemaking (“Regulation AT NPRM”) that proposed a series of risk controls, registration and recordkeeping requirements, transparency measures, and other safeguards to address risks arising from automated trading on DCMs.²⁶ On November 25, 2016, the Commission issued a supplemental notice of proposed rulemaking for Regulation AT (“Supplemental Regulation AT NPRM”).²⁷ The Supplemental Regulation AT NPRM proposed to modify certain proposals in the Regulation AT NPRM, including the risk control framework.

E. Market Participants’ Discussions of Best Practices

At an October 5, 2018 Technology Advisory Committee (“TAC”)²⁸ meeting, a member of the TAC’s Subcommittee on Automated and Modern Trading Markets (“Modern Trading Subcommittee”), CME Group, discussed the March 2018 International Organization of Securities Commissions (“IOSCO”) Consultation Report, “Mechanisms

²⁵ Concept Release on Risk Controls and System Safeguards for Automated Trading Environments, 78 FR 56542 (Sept. 12, 2013).

²⁶ Regulation AT NPRM, *supra* note 4.

²⁷ Supplemental Regulation AT NPRM, *supra* note 5.

²⁸ The TAC was created in 1999 to advise the Commission on the impact and implications of technological innovations on financial services and the futures markets, and the appropriate legislative and regulatory response to increasing use of technology in the markets. Members include representatives of futures exchanges, self-regulatory organizations, financial intermediaries, market participants, and traders.

Used by Trading Venues to Manage Extreme Volatility and Preserve Orderly Trading.”²⁹

In that report, IOSCO recommended that DCMs: 1) have appropriate volatility control mechanisms; 2) ensure that volatility control mechanisms are appropriately calibrated; 3) regularly monitor volatility control mechanisms; 4) provide upon request of regulatory authorities information regarding the triggering of volatility control mechanisms; 5) communicate information to market participants and the public about volatility control mechanisms; 6) make available to market participants information regarding the triggering of a volatility control mechanism; and 7) communicate with other trading venues where the same or related instruments are traded.³⁰ CME Group reported that it was in compliance with the IOSCO recommendations regarding volatility control mechanisms through the implementation of: 1) in line credit controls; 2) velocity logic functionality; 3) price limits and circuit breakers; 4) protection points for market and stop orders; and 5) price banding.³¹

On October 3, 2019, the TAC held a public meeting in which it heard presentations from the Modern Trading Subcommittee. During this meeting, the Futures Industry Association (“FIA”) presented to the CFTC’s TAC certain best practices for exchange risk controls (“FIA TAC Presentation”).³² FIA discussed four principles to address market disruptions from electronic trading activities: 1) all electronic orders should be subject to exchange-based pre-trade and other risk controls and policies

²⁹ CME Group, “Automated and Modern Trading Markets Subcommittee” (Oct. 5, 2018), available at: https://www.cftc.gov/About/CFTCCommittees/TechnologyAdvisory/tac_meetings.html.

³⁰ *Id.*

³¹ *Id.*

³² FIA, “Best Practices for Exchange Risk Controls” (Oct. 3, 2019), available at <https://www.cftc.gov/PressRoom/Events/opaeventtac100319>.

designed to prevent inadvertent and disruptive orders and reduce excessive messaging; 2) exchanges should provide tools to control orders that may no longer be under the control of the trading system; 3) exchanges should adopt policies to require operators of electronic trading systems to ensure that their systems are tested before accessing the exchange; and 4) exchanges should be able to identify the originator of an electronic order and whether the order was generated automatically or manually.³³

FIA also reported that its multiple surveys of exchanges, clearing firms and traders over the last ten years demonstrate that there has been a substantial increase in the implementation of market integrity controls since 2010, including price banding and exchange market halts.³⁴ They found that there has been a steady upward trend in the adoption of basic pre-trade controls, such as order size and net position limits, and that controls and tools such as self-match prevention, drop copy feeds, and kill switches are widely available.³⁵ According to FIA, there has been a steady upward trend in the voluntary adoption of controls across the various participants in the life cycle of the trade (traders, brokers, exchanges, and clearing firms) and generally positive feedback to industry initiatives and responsiveness to identify and self-solve industry risks.³⁶

At that same October 2019 TAC meeting, the Intercontinental Exchange (“ICE”) reported on its implementation of a broad array of risk controls consistent with FIA’s

³³ See *id.* at 4. FIA has also published principles-based guidance on European governance and control requirements for firms working with third-party algorithmic trading providers. See FIA, “Guidance for Firms Working with Third-Party Algorithmic Trading System Providers on European Governance and Control Requirements” (Dec. 2018), available at <https://www.fia.org/sites/default/files/2020-02/Guidance%20for%20Firms%20and%20Third%20Party%20Algorithmic%20Trading%20Providers.pdf>.

³⁴ FIA, “Best Practices for Exchange Risk Controls” *supra* note 32, at 7.

³⁵ *Id.*

³⁶ *Id.*

findings.³⁷ ICE's risk controls include: 1) price banding on collars that warn and reject orders that are outside the band of current market value; 2) circuit breakers when there are large price moves in a short period of time; 3) trades outside of a certain range reviewed by ICE Operations; 4) message throttle limits to prevent malfunctioning software from overwhelming the market; and 5) auto cancellation of open orders upon session disconnect or loss of heartbeat.³⁸

III. Risk Principles

A. Electronic Trading, Electronic Orders, Market Disruption, and System Anomalies

The proposed Risk Principles focus on market disruptions or system anomalies associated with electronic trading activities. While not defined in the regulation text, this preamble will broadly discuss the goals of the Risk Principles through these terms. The Commission intends, by not defining the terms in a static way, that the application of these Risk Principles by DCMs and the Commission will be able to evolve over time along with market developments. However, a general discussion of those terms in the context of today's electronic markets will provide the public and, in particular, DCMs, guidance for applying these Risk Principles.

Electronic trading encompasses a wide scope of trading, and should be understood, for purposes of this proposed rulemaking, to include all trading and order messages submitted by electronic means to the DCM's electronic trading platform. This would include both automated and manual order entry.

³⁷ ICE, "ICE Futures Exchange Risk Controls" (Oct. 3, 2019), available at: https://www.cftc.gov/About/CFTCCcommittees/TechnologyAdvisory/tac_meetings.html.

³⁸ *Id.*

The Commission considers the term “market disruption,” for purposes of the Risk Principles, generally to include an event originating with a market participant that significantly disrupts the: 1) operation of the DCM on which such participant is trading; or 2) the ability of other market participants to trade on the DCM on which such participant is trading. For the purposes of the Risk Principles, “system anomalies” are unexpected conditions that occur in a market 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. “Operation of the DCM,” for the purposes of this proposal, refers specifically to the exchange’s order processing and trade execution functions.³⁹

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. Accordingly, a market participant’s automated trading system malfunction, for instance, on its own, would not be considered disruptive unless there was some significant consequence to other market participants’ ability to trade or manage risk. As noted below in the discussion of Risk Principle 3, a significant market disruption would include 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 participant’s trading system. Similarly, market volatility by itself is not a market disruption. For example, the fact of a market being “limit up” or “limit down” would not, on its own, be considered disruptive, regardless of the presence of automated trading functionality in that market or during that trading period.

³⁹ The Commission notes that the term “electronic trading” includes both cleared and uncleared trades.

The Commission believes that DCMs should have discretion to precisely identify market disruptions and system anomalies as they relate to the DCMs' particular markets and market participants' trading activity. The Commission also recognizes that each DCM may have different understandings of, or parameters for, disruptive behavior in its market. This may result in a certain degree of differences in DCM rules implementing the Risk Principles. The Commission does not believe that a lack of uniformity between DCMs' rules and risk controls renders a particular DCM's rules or risk controls *per se* unreasonable.

Request for Comment

1. Is the Commission's description of "electronic trading" sufficiently clear? If not, please explain.
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?
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?
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?

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

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?

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.

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?

B. Proposed Regulation 38.251(e)—Risk Principle 1

Proposed regulation 38.251(e)—Risk Principle 1—provides that a DCM 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 Acceptable Practices for proposed regulation 38.251(e) provide DCMs with discretion to determine what rules to impose on market participants to address electronic trading risks, subject to Commission action. The Commission recognizes that a DCM is well-positioned to assess the market disruption and system anomaly risks posed by its markets and market participant activity, and to design appropriate measures to address those risks. The Acceptable Practices are intended to provide DCMs with reasonable discretion to impose rules to prevent, detect, and mitigate market disruption. Consistent with existing DCM practices, this could include requiring market participants to implement exchange-provided risk controls and order cancellation functionality, and requiring testing in advance of exchange access. In developing a framework to address these risks, DCMs should take into account industry best practices and what risk controls and testing practices are technologically feasible.

The Commission acknowledges that there are various DCM practices in place today that are consistent with proposed regulation 38.251(e), such as exchange-provided risk controls primarily geared to address financial risk or market risk that also address preventing or mitigating market disruptions or system anomalies caused by electronic trading activities. For example, CME Group requires its clearing member firms to utilize the Globex Credit Control system to set maximum order size limits for individual customers.⁴⁰ CME Group also provides order cancellation systems including a “kill switch” functionality⁴¹ to clearing and execution firms.⁴² ICE will automatically cancel

⁴⁰ CME Group Regulation AT NPRM Letter, at 16-17.

⁴¹ CME Group’s “kill switch” functionality is defined as an exchange-provided graphical user interface that allows clearing firms and permissioned executing firms a one-step shutdown of CME Globex activity at the clearing firm level, Globex firm level, and/or by SenderComp IDs. When a kill switch is activated, order

open orders upon session disconnect or loss of heartbeat.⁴³ DCMs also impose system testing requirements on participants.⁴⁴

One recent example highlights measures that a DCM could adopt and implement to prevent and mitigate a potential market disruption. As discussed above in Section II.A, in the fall of 2019, CME Group experienced a significant increase in messaging in the Eurodollar futures market. CME Group already had a messaging policy in place, “designed to support efficient market operations and foster high quality, liquid markets by encouraging responsible and reasonable messaging practices by market participants.”⁴⁵ In response to the increasing messaging activity in the Eurodollar market, CME Group changed its rules to increase penalties for exceeding certain messaging

entry is blocked and working orders are cancelled for selected SenderComp IDs. *See* CME Group’s discussion of risk management tools, available at <https://www.cmegroup.com/globex/trade-on-cme-globex/risk-management-tools.html>.

⁴² *See id.*

⁴³ ICE Presentation to TAC, at 3 (Oct. 2019), available at <https://www.cftc.gov/PressRoom/Events/opaeventtac100319>.

⁴⁴ For example, CBOE Futures Exchange, LLC (“CFE”) Rule 513C provides that the exchange may from time to time prescribe systems testing requirements applicable to “Trading Privilege Holders” relating to connectivity to the CFE’s system and CFE functionality. Such participants must maintain adequate documentation of tests and provide reports to the exchange as requested. CFE Rule 513C is available at <https://www.cboe.com/aboutcboe/about-cfe/legal-regulatory>.

CME Group requires that all client systems transacting on CME Globex via iLink order routing or processing CME Group market data are certified by AutoCert+, an automated testing tool for validating client system functionality, and offers customer testing environments for system validation prior to connecting to and transacting on CME Group platforms. CME Group indicates that “Certification ensures messaging and processing reliability and the capability to gracefully recover during abnormal message processing events.” *See* CME Group’s website at <https://www.cmegroup.com/confluence/display/EPICSANDBOX/Client+Application+Testing+and+Certification>.

At CBOT, market participants have been fined for not testing their systems before using them to enter orders into the production market under CBOT Rule 432.Q, which governs acts that are considered detrimental to the interests or welfare of the exchange. *See* FIA Supplemental NPRM Letter, at 4 n.12.

⁴⁵ *See* CME Globex Messaging Efficiency Program policies, available at <https://www.cmegroup.com/globex/trade-on-cme-globex/messaging-efficiency-program.html>.

thresholds, and cut off connections for repeat violators.⁴⁶ Implementing messaging limits on its market participants, and adjusting them as appropriate in light of potentially disruptive trading behaviors, as well as disconnecting access if necessary, are measures that DCMs could consider to address proposed regulation 38.251(e).

Other DCMs have also addressed the potential for similar activity to cause market disruptions or system anomalies. CFE Rule 513(c) provides that CFE may limit the number of messages or the amount of data transmitted by Trading Privilege Holders to the CFE System in order to protect the integrity of the CFE System.⁴⁷ In addition, CFE may impose restrictions on the use of any individual access to the CFE System, including temporary termination of individual access and activation by CFE of its kill switch function under Rule 513A(j), if CFE believes such restrictions are necessary to ensure the proper performance of the CFE System or to protect the integrity of the market.⁴⁸

In the October 2019 FIA TAC Presentation, FIA indicated that since 2010, it has conducted various surveys of exchanges, as well as a sampling of its members, including clearing firms and principal traders. These surveys reflect clearing firms' broad use (either internally or as offered by an exchange) of: 1) message and execution throttles; 2) price collars; 3) maximum order sizes; 4) order, trade, and position drop copy; and 5) order cancellation capabilities.⁴⁹ FIA noted in its presentation that initiatives are underway at most exchanges to develop Application Programming Interface access to

⁴⁶ Osipovich, Alexander, "Futures Exchange Reins in Runaway Trading Algorithms," *supra* note 12.

⁴⁷ CFE Rules 513(c) and 513A(h), available at <https://www.cboe.com/aboutcboe/about-cfe/legal-regulatory>.

⁴⁸ *See id.*

⁴⁹ FIA, "Best Practices for Exchange Risk Controls" *supra* note 32, at 8. *See, e.g.*, CFE Rule 513A (describing pre-trade risk control mechanisms provided within CFE's trading system, and whether each control is to be set by the market participant or the exchange).

various risk controls, as well as to improve the functionality available in exchange certification and conformance testing environments.⁵⁰

The Commission believes that the current industry practices described above serve as examples of measures that all DCMs could adopt, as appropriate, as rules to address the potential for electronic trading activities to cause market disruptions and system anomalies as those risks are presented today. As noted above, the Commission believes that this Risk Principle will help ensure that DCMs continue to monitor these risks as they evolve along with the markets, and make reasonable changes as appropriate to address those evolving risks.

The Commission acknowledges that it may not be possible for a DCM to prevent all market disruptions and system anomalies. A DCM would not necessarily have violated this principle if a market disruption or anomaly does occur, despite its having rules in place. To that end, the Commission is proposing Acceptable Practices in Appendix B to part 38 with respect to DCM obligations under proposed regulation 38.251(e). The proposed Acceptable Practices provide that a DCM can comply with the requirements of proposed 38.251(e) by adopting rules that are “reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading.” The Commission interprets “reasonably designed” to require that a DCM create rules that are objectively reasonable.

Request for Comment

The Commission requests comment on all aspects of proposed regulation 38.251(e). The Commission also invites specific comments on the following:

⁵⁰ FIA, “Best Practices for Exchange Risk Controls” *supra* note 32, at 9.

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?

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

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)?

C. Proposed Regulation 38.251(f)—Risk Principle 2

Proposed regulation 38.251(f)—Risk Principle 2—provides that DCMs must subject all electronic orders to exchange-based pre-trade risk controls to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading.

This proposed principle obligates DCMs to implement exchange-based pre-trade risk controls on all electronic orders.⁵¹ The Commission concurs with the broad agreement among market participants, market infrastructure operators, and intermediaries that “[p]re-trade risk controls are the responsibility of all market participants, and when implemented properly and appropriate to the nature of the activity, have been proven to be the most effective safeguard for the markets, and should be applied comprehensively

⁵¹ While the Risk Principles would apply solely to DCMs, this proposal should not be interpreted as relieving market participants of any existing obligation to implement their own risk controls under any applicable Commission or exchange rules, including Commission regulation 1.11 applicable to FCMs. Rather, consistent with industry practice, Commission regulation 1.11(e)(3)(ii) (requiring automated financial risk management controls to address operational risk), and any rules DCMs impose pursuant to proposed regulation 38.251(e) (Risk Principle 1), the Commission expects that market participants would continue to implement their own controls.

to all electronic orders.”⁵² In light of this public comment and the overall migration to electronic trading, the Commission proposes to apply Risk Principle 2 to all electronic trading.

The Commission believes that the existing DCM Core Principle 4 Acceptable Practices list appropriate DCM-implemented risk controls, including pre-trade limits on order size, price collars or bands around the current price, message throttles, and daily price limits. The existing Acceptable Practices further provide that the DCM must set the parameters for these controls, so long as the types of controls and their specific parameters are reasonably likely to serve the purpose of preventing market disruptions and price distortions.⁵³ Proposed regulation 38.251(f) does not change the Acceptable Practices for regulation 38.255, which remain in effect.

The Commission also notes that the October 2019 FIA TAC Presentation illustrates measures that DCMs could consider adopting to address risks posed by electronic trading. In addition to the four principles described in Section II.E above, FIA stated that, “[a]ll users and providers of electronic trading systems have a responsibility to implement pre-trade risk controls appropriate to their role in the market, whether initiating the trade, routing the trade, executing the trade, or clearing the trade.”⁵⁴ FIA’s presentation also listed specific pre-trade risk controls that are critical in preventing market disruption, which are implemented at trader, broker, and exchange levels, which

⁵² FIA, FIA PTG, MFA, ISDA, and SIFMA AMG Combined Comment Letter to Regulation AT NPRM, at 3 (June 24, 2016).

⁵³ Appendix B to Part 38—Guidance on, and Acceptable Practices in, Compliance with Core Principles, Core Principle 4 (Subparagraph (a)).

⁵⁴ FIA, “Best Practices for Exchange Risk Controls” *supra* note 32, at 5.

included, among others, fat finger (maximum size), market data reasonability checks, repeatable execution limits, and messaging limits and throttles.⁵⁵

The purpose of proposed regulation 38.251(f) (Risk Principle 2) is to require DCMs to consider market participants' trading activities when designing and implementing exchange-based risk controls to address market disruptive events. While existing guidance provides that exchange-based controls "must be adapted to the unique characteristics of the markets to which they apply and must be designed to avoid market disruptions without unduly interfering with that market's price discovery function," Risk Principle 2 more explicitly requires DCMs to consider risk controls that specifically address market disruptions or system anomalies associated with electronic trading activity, and implement appropriate controls. It provides flexibility for technological progress (for example, while controls called "message throttles" may be appropriate now, industry measures to address excessive messaging could change in the future). It also allows DMO to assess compliant risk controls as part of its rule enforcement review program, comparing all DCMs to a baseline of controls on electronic trading and electronic order entry that are prevalent and effective across DCMs.

Given the prevalence of existing exchange-based risk controls, the Commission expects that many DCM practices are consistent with proposed regulation 38.251(f). Depending on the circumstances, it may be possible for a DCM to appropriately conclude that its existing pre-trade risk controls satisfy the proposed Acceptable Practices for proposed regulation 38.251(f), and that the adoption of this rule does not require it to do something more, or different, at this time. As noted above, existing regulation 38.255 is

⁵⁵ *See id.*

similar to proposed regulation 38.251(f) in that it requires exchange-based risk controls to prevent and reduce the potential risk of market disruptions. However, regulation 38.255 does not explicitly address the full scope of risks addressed by proposed regulation 38.251(f). For example, the preamble to the part 38 final rules states that proposed 38.255 requires DCMs to have in place effective risk controls including, but not limited to, pauses and/or halts to trading in the event of extraordinary price movements that may result in distorted prices or trigger market disruptions.⁵⁶ Proposed regulation 38.251(f) would more explicitly address other types of market disruptions associated with electronic trading. Its requirement that DCMs implement risk controls to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading applies to any disruptive event that significantly impairs the ability of market participants to manage risk or otherwise trade. Further, proposed regulation 38.251(f), specifically applies to electronic orders. Risk Principle 2 provides clarity to DCMs that their exchange-based risk controls must address market disruptions caused by electronic trading, including those related to price movements as well as other events that impair market participants' ability to trade.

Examples of existing exchange-based risk controls include: 1) CME Group automated messaging volume controls; price banding set at individual product level and protection point controls; "fat finger" backstop of "Maximum Order Size Protection" functionality that sets a pre-defined maximum order size cap on an individual contract basis;⁵⁷ and 2) ICE message throttle limits (preventing malfunctioning software from

⁵⁶ Core Principles and Other Requirements for Designated Contract Markets, 77 FR 36612, 36637 (June 19, 2012).

⁵⁷ CME Group Regulation AT NPRM Letter, NPRM at 14-17 (Mar. 16, 2016).

overwhelming the market); price banding or collars that warn and reject orders outside the band of current market value; and interval price limits (facilitating orderly trading when there are large price moves in a short period of time).⁵⁸

FIA's 2018 survey of exchange-traded derivatives venues showed that 11 out of 17 responding venues had implemented dynamic price bands and that 13 had implemented trading halts during extreme volatility.⁵⁹ Notably, every exchange in the Americas that responded to the survey had implemented both price banding and trading halts.⁶⁰

The Commission reiterates the concept noted above that DCMs' understanding of risks posed by electronic trading, and the reasonably appropriate measures to address them, may evolve over time. Accordingly, the Commission would expect DCMs to continue to develop controls that are effective to prevent, detect, and mitigate market disruptions or system anomalies, regardless of whether they are named in existing part 38 Acceptable Practices.

As with proposed regulation 38.251(e), the Commission is proposing Acceptable Practices for proposed regulation 38.251(f) to provide that a DCM can comply with the requirements of proposed regulation 38.251(f) for risk controls by adopting rules that are "reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading." This Acceptable Practice is consistent with the existing Acceptable Practice in Appendix B to part 38 corresponding to the risk

⁵⁸ ICE TAC Presentation, *supra* note 42, at 3.

⁵⁹ Subcommittee Presentation at 5 (Oct. 5, 2018). The presentation is available at https://www.cftc.gov/About/CFTCCcommittees/TechnologyAdvisory/tac_meetings.html.

⁶⁰ *See id.*

controls required by existing 38.255, which provides, in part, that a DCM’s risk control program can comply with its obligations “so long as the types of controls and their specific parameters are reasonably likely to serve the purpose of preventing market disruptions and price distortions.”⁶¹

Request for Comment

The Commission requests comment on all aspects of proposed regulation 38.251(f). The Commission also invites specific comments on the following:

12. The Acceptable Practices for Core Principle 2 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?

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

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

⁶¹ Regarding risk controls for trading, the Acceptable Practices for Regulation 38.255 provide that an acceptable program for preventing market disruptions must demonstrate appropriate trade risk controls, in addition to pauses and halts. Such controls must be adapted to the unique characteristics of the markets to which they apply and must be designed to avoid market disruptions without unduly interfering with that market’s price discovery function. The DCM may choose from among controls that include: pre-trade limits on order size, price collars or bands around the current price, message throttles, and daily price limits, or design other types of controls. Within the specific array of controls that are selected, the DCM also must set the parameters for those controls, so long as the types of controls and their specific parameters are reasonably likely to serve the purpose of preventing market disruptions and price distortions. If a contract is linked to, or is a substitute for, other contracts, either listed on its market or on other trading venues, the DCM must, to the extent practicable, coordinate its risk controls with any similar controls placed on those other contracts. If a contract is based on the price of an equity security or the level of an equity index, such risk controls must, to the extent practicable, be coordinated with any similar controls placed on national security exchanges.

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

D. Proposed Regulation 38.251(g)—Risk Principle 3

Proposed regulation 38.251(g)—Risk Principle 3—provides that a DCM must promptly notify Commission staff of a significant disruption to its electronic trading platform(s) and provide timely information on the causes and remediation.

Proposed regulation 38.251(g) includes a “significant” threshold for notification. An 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. 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. Proposed regulation 38.251(g) would obligate the DCM to notify the Commission of this event promptly after the DCM becomes aware of it.

Proposed regulation 38.251(g) is to be distinguished from existing Commission regulation 38.1051(e), which requires DCMs to notify the Commission in the event of, among other things, significant systems malfunctions. Proposed regulation 38.251(g) addresses market disruptive events, as opposed to incidents that threaten the integrity of a DCM’s internal technological systems. Thus, unlike existing Commission regulation 38.1051(e), proposed regulation 38.251(g) would address malfunctions of the technological systems of trading firms and other non-DCM market participants that cause disruptions of the DCM’s trading platform.

The Commission believes that the notification requirement under proposed regulation 38.251(g) will assist the Commission's oversight and its ability to monitor and assess market disruptions across all DCMs. The Commission expects that notification pursuant to proposed regulation 38.251(g) would take a similar form to the current notification process for electronic trading halts, cyber security incidents, or activation of a DCM's business continuity-disaster recovery plan under Commission regulation 38.1051(e).

Request for Comment

The Commission requests comment on all aspects of proposed regulation 38.251(g). The Commission also invites specific comments on the following:

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.

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).

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.

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?

IV. Related Matters

A. Regulatory Flexibility Act

The Regulatory Flexibility Act (“RFA”)⁶² requires federal agencies, in promulgating regulations, to consider the impact of those regulations on small entities, and to provide a regulatory flexibility analysis with respect to such impact. The regulations adopted herein will directly affect DCMs. The Commission previously determined that DCMs are not “small entities” for purposes of the RFA because DCMs are required to demonstrate compliance with a number of Core Principles, including principles concerning the expenditure of sufficient financial resources to establish and maintain an adequate self-regulatory program.⁶³ For these reasons, DCMs are not deemed “small entities” for purposes of the RFA, and the Chairman, on behalf of the Commission, hereby preliminarily certifies, pursuant to 5 U.S.C. 605(b), that the regulations will not have a significant economic impact on a substantial number of small entities.

Request for Comment

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

⁶² 5 U.S.C. 601 *et seq.*

⁶³ See Policy Statement and Establishment of Definitions of “Small Entities” for Purposes of the Regulatory Flexibility Act, 47 FR 18618, 18619 (Apr. 30, 1982); *see also, e.g.*, DCM Core Principle 21 applicable to DCMs under section 735 of the Dodd-Frank Act.

B. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (“PRA”)⁶⁴ imposes certain requirements on federal agencies, including the Commission, in connection with conducting or sponsoring any “collection of information,” as defined by the PRA. Under the PRA, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid control number from the Office of Management and budget (“OMB”).⁶⁵ The PRA is intended, in part, to minimize the paperwork burden created for individuals, businesses, and other persons as a result of the collection of information by federal agencies, and to ensure the greatest possible benefit and utility of information created, collected, maintained, used, shared, and disseminated by or for the federal government.⁶⁶ The PRA applies to all information, regardless of form or format, whenever the federal government is obtaining, causing to be obtained, or soliciting information, and includes required disclosure to third parties or the public, of facts or opinions, when the information collection calls for answers to identical questions posed to, or identical reporting or recordkeeping requirements imposed on, ten or more persons.⁶⁷

This proposal, if adopted, would result in a collection of information within the meaning of the PRA, as discussed below. This proposed rulemaking contains collections of information for which the Commission has previously received control numbers from the Office of Management and Budget (“OMB”). The titles for these existing collections

⁶⁴ 44 U.S.C. 3501 *et seq.*

⁶⁵ *See* 44 U.S.C. 3507(a)(3); 5 CFR 1320.5(a)(3).

⁶⁶ *See* 44 U.S.C. 3501.

⁶⁷ *See* 44 U.S.C. 3502(3).

of information are: OMB control number 3038–0052, Core Principles and Other Requirements for DCMs (“OMB Collection 3038-0052”) and OMB control number 3038-0093, Provisions Common to Registered Entities (“OMB Collection 3038-0093”).

The Commission therefore is submitting this proposal to the OMB for its review in accordance with the PRA.⁶⁸ Responses to this collection of information would be mandatory. The Commission will protect any proprietary information according to the Freedom of Information Act and part 145 of the Commission’s regulations.⁶⁹ In addition, section 8(a)(1) of the Commodity Exchange Act (“CEA”) strictly prohibits the Commission, unless specifically authorized by the CEA, from making public any “data and information that would separately disclose the business transactions or market positions of any person and trade secrets or names of customers.”⁷⁰ Finally, the Commission is also required to protect certain information contained in a government system of records according to the Privacy Act of 1974.⁷¹

1. OMB Collection 3038-0093 – Provisions Common to Registered Entities

Proposed regulation 38.251(e) (“Risk Principle 1”) provides that DCMs must adopt and implement rules governing market participants subject to their respective jurisdictions to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. As provided in the proposed Acceptable Practices in Appendix B to part 38, such rules must be reasonably designed to prevent, detect, and

⁶⁸ See 44 U.S.C. 3507(d) and 5 CFR 1320.11.

⁶⁹ See 5 U.S.C. 552; *see also* 17 CFR 145 (Commission Records and Information).

⁷⁰ 7 U.S.C. 12(a)(1).

⁷¹ 5 U.S.C. 552a.

mitigate market disruptions or system anomalies associated with electronic trading. Any such rules a DCM adopts pursuant to proposed regulation 38.251(e), must be submitted to the Commission in accordance with part 40 of the Commission's regulations. Specifically, a DCM would be required to submit such rules to the Commission in accordance with either: 1) Commission regulation 40.5, which provides procedures for the voluntary submission of rules for Commission review and approval; or 2) Commission regulation 40.6, which provides procedures for the self-certification of rules with the Commission. This information collection would be required for DCMs as needed, on a case-by-case basis. The Commission acknowledges, however, that there are various DCM practices in place today that may be consistent with proposed regulation 38.251(e), such as exchange-provided risk controls that address potential price distortions and related market anomalies. As such, it is possible that some DCMs would not be required to file new or amended rules to satisfy Risk Principle 1, if adopted.

Proposed Risk Principle 1, if adopted, would amend OMB Collection 3038-0093 by increasing the existing annual burden by 48 hours⁷² for DCMs that would be required to comply with part 40 of the Commission's regulations, as described above. As a result, the revised total annual burden under this collection would be 720 hours.⁷³ Although the Commission believes that operational and maintenance costs for DCMs in proposed Risk Principle 1 will incrementally increase, these costs are expected to be de minimis.

⁷² The Commission estimates that proposed regulation 38.251(e) would require potentially 15 DCMs to make 2 filings with the Commission a year requiring approximately 24 hours each to prepare. Accordingly, the total burden hours for each DCM would be approximately 48 hours per year.

⁷³ The Commission estimates that the total aggregate annual burden hours for DCMs under proposed regulation 38.251(e) would be 720 hours based on each DCM incurring 48 burden hours (15 x 48 = 720).

OMB Collection 3038-0093 was created to cover the Commission's part 40 regulatory requirements for registered entities (including DCMs, swap execution facilities, derivatives clearing organizations, and swap data repositories) to file new or amended rules and product terms and conditions with the Commission.⁷⁴ OMB Control Number 3038-0093 covers all information collections in part 40, including Commission regulation 40.2 (Listing products by certification), Commission regulation 40.3 (Voluntary submission of new products for Commission review and approval), Commission regulation 40.5 (Voluntary submission of rules for Commission review and approval), and Commission regulation 40.6 (Self-certification of rules). The proposal is expected to modify the existing annual burden in OMB Collection 3038-0093 for complying with certain requirements in proposed Risk Principle 1, as estimated in aggregate below:

Estimated number of respondents: 15

Estimated frequency/timing of responses: As needed.

Estimated number of annual responses per respondent: 2

Estimated number of annual responses for all respondents: 30

Estimated annual burden hours per response: 24

Estimated total annual burden hours per respondent: 48

Estimated total annual burden hours for all respondents: 720

⁷⁴ See 17 CFR 40.

2. OMB Collection 3038-0052 – Core Principles and Other Requirements for DCMs

Proposed regulation 38.251(g) (“Risk Principle 3”) requires a DCM to promptly notify Commission staff of any significant disruption to its electronic trading platform(s) and provide timely information on the cause and remediation of such disruption.⁷⁵ Under Risk Principle 3, such notification should include an email containing sufficient information to convey the nature of the disruption, and if known, its cause, and the remediation. The Commission recognizes that the specific cause of the disruption and the attendant remediation may not be known at the time of the disruption and may have to be addressed in a follow-up e-mail or report. This information collection would be required for DCMs as needed, on a case-by-case basis.

Proposed Risk Principle 3, if adopted, would amend OMB Collection 3038-0052 by increasing the number of annual responses by 750 that may be filed by DCMs under the existing information collection. The proposed adoption of Risk Principle 3 would also incrementally increase the existing annual burden by 250 hours per DCM.⁷⁶ As a result, the revised total aggregate annual burden under this collection would be 3,750 hours.⁷⁷ Although the Commission believes that operational and maintenance costs for DCMs in proposed Risk Principle 3 will incrementally increase, these costs are expected to be de minimis.

⁷⁵ See *supra* Section III.D (discussion of the Risk Principle 3).

⁷⁶ The Commission estimates that proposed regulation 38.251(g) would require potentially each DCM to make 50 reports with the Commission a year requiring approximately 5 hours each to prepare. Accordingly, the total burden hours for each DCM would be approximately 250 hours per year (50 x 5 = 250).

⁷⁷ The Commission estimates that the total aggregate annual burden hours for DCMs under proposed regulation 38.251(g) would be 3,750 hours based on each DCM incurring 250 burden hours (15 x 250 = 3,750).

OMB Collection 3038-0052 was created to cover regulatory requirements for DCMs under part 38 of the Commission's regulations.⁷⁸ OMB Control Number 3038-0052 covers all information collections in part 38, including Subpart A (General Provisions), Subparts B through X (the DCM core principles), as well as the related appendices thereto, including Appendix A (Form DCM), Appendix B (Guidance on, and Acceptable Practices in, Compliance with Core Principles), and Appendix C (Demonstration of Compliance That a Contract Is Not Readily Susceptible to Manipulation). The proposed amendments are expected to modify the existing annual burden in OMB Collection 3038-0052 for complying with certain requirements in Subpart E (Prevention of Market Disruption) of part 38, as estimated in aggregate below:

Estimated number of respondents: 15

Estimated frequency/timing of responses: As needed.

Estimated number of annual responses per respondent: 50

Estimated number of annual responses for all respondents: 750

Estimated annual burden hours per response: 5

Estimated total annual burden hours per respondent: 250

Estimated total annual burden hours for all respondents: 3,750

Estimated aggregate annual recordkeeping burden hours: 1,500⁷⁹

⁷⁸ See generally 17 CFR 38.

⁷⁹ The Commission estimates that the total aggregate annual recordkeeping burden hours for DCMs under regulation 38.950 and 38.951 would be 1,500 hours based on each DCM incurring 100 burden hours (15 x 100 = 1,500).

Request for Comment

The Commission invites the public and other federal agencies to comment on the proposed information collection requirements, including the following:

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;

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;

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.

The public and other federal agencies may submit comments directly to the Office of Information and Regulatory Affairs, OMB, by fax at (202) 395-6566 or by email at *OIRAsubmission@omb.eop.gov*. Please provide the Commission with a copy of submitted comments so that they can be summarized and addressed in the final rule. Refer to the ADDRESSES section of this document for comment submission instructions to the Commission. A copy of the supporting statements for the collections of information discussed above may be obtained by visiting *RegInfo.gov*. OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this release. Therefore, a comment to OMB is best assured of receiving full

consideration if OMB (and the Commission) receives it within 30 days of publication of this Notice. Nothing in the foregoing affects the deadline enumerated above for public comment to the Commission on the proposed regulations.

C. Cost-Benefit Considerations

1. Introduction

Section 15(a) of the CEA requires the Commission to consider the costs and benefits of its actions before promulgating a regulation under the CEA or issuing certain orders.⁸⁰ Section 15(a) further specifies that the costs and benefits shall be evaluated in light of five broad areas of market and public concern: 1) protection of market participants and the public; 2) efficiency, competitiveness, and financial integrity of futures markets; 3) price discovery; 4) sound risk management practices; and 5) other public interest considerations. The Commission considers the costs and benefits resulting from its discretionary determinations with respect to the section 15(a) factors.

The baseline for this consideration of costs and benefits in this proposal is the monitoring and mitigation capabilities of DCMs, as governed by rules in current part 38 of CFTC regulations. Under these rules, DCMs are required to conduct real-time monitoring of all trading activity on its electronic trading platforms and identify disorderly trading activity and any market or system anomalies. Other sections of part 38 also require DCMs to establish and maintain risk control mechanisms to prevent and reduce the potential risk of price distortions and interruptions in orderly trading in markets, including, but not limited to, market restrictions that pause or halt trading in

⁸⁰ 7 U.S.C. 19(a).

market conditions prescribed by the DCMs.⁸¹ In particular, § 38.251(a) through (d) already require DCMs to use an effective real-time program to monitor and evaluate individual traders' market activity, as well as the general market data, in order to prevent and detect manipulative behavior and market disruptions. DCMs are also already required to demonstrate the ability to comprehensively and accurately reconstruct daily trading activity for the purposes of detecting trading abuses.

The Commission recognizes that the proposed rules may impose additional costs on DCMs and market participants. The Commission has endeavored to assess the expected costs and benefits of the proposed rulemaking in quantitative terms, including PRA-related costs, where possible. In situations where the Commission is unable to quantify the costs and benefits, the Commission identifies and considers the costs and benefits of the applicable proposed rules in qualitative terms. The lack of data and information to estimate those costs is attributable in part to the nature of the proposed rules and uncertainty about the potential responses of market participants to the implementation of the proposed rules. The Commission requests data and information from market participants and other commenters to allow it to better estimate the costs of the proposed rule.

2. Summary of Proposal

As discussed in more detail in the preamble above, the Commission considered taking a more prescriptive approach as an alternative to the proposed rules but decided to give more discretion to each DCM in terms of how to precisely define market disruptions and system anomalies as they relate to their particular markets. As a result, each DCM

⁸¹ See, e.g., Commission regulation 38.255, which currently requires DCMs to establish and maintain risk control mechanisms to prevent and reduce the potential risk of price distortions and market disruptions.

will have the flexibility to tailor the implementation of the proposed rules to best prevent, detect, and mitigate market disruptions or system anomalies in their respective markets. Consequently, the Commission believes that DCMs' tailored rules and their implementation will be less burdensome. Therefore the Commission proposes the following specific Risk Principles and associated Acceptable Practices applicable to DCM electronic trading.

a. Proposed Regulation 38.251(e)—Risk Principle 1

Proposed regulation 38.251(e)—Risk Principle 1—provides that a DCM 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.

b. Proposed Regulation 38.251(f)—Risk Principle 2

Proposed regulation 38.251(f)—Risk Principle 2—provides that a DCM must subject all electronic orders to exchange-based pre-trade risk controls to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading.

c. Proposed Regulation 38.251(g)—Risk Principle 3

Proposed regulation 38.251(g)—Risk Principle 3—provides that a DCM must promptly notify Commission staff of a significant disruption to its electronic trading platform(s) and provide timely information on the causes and remediation.

d. Proposed Acceptable Practices for Proposed Regulations 38.251(e) and (f)

The proposed Acceptable Practices provide that to comply with regulation 38.251(e), the DCM must adopt and implement rules that are reasonably designed to

prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. To comply with regulation 38.251(f), the DCM must subject all electronic orders to exchange-based pre-trade risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies.

Request for Comment

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?

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

3. Costs

Existing practices with minimal costs

DCMs' current risk management practices, particularly those implemented to comply with existing Commission regulations §§ 38.157, 38.251(c), 38.255, and 38.607, already may comply with the requirements of proposed rules 38.251(e) through 38.251(g). Specifically, while some DCMs might need to start collecting more detailed information from their market participants, the Commission believes most DCMs already have most of the information required to adopt and implement rules governing market participants subject to their respective jurisdiction in order to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. The Commission also believes that DCMs have the means to acquire efficiently, and with potentially minimal cost, more information if needed. Moreover, DCMs currently

monitor their markets and have rules to prevent and mitigate market disruptions or system anomalies, as required by proposed rule 38.251(e). The Commission also views many existing DCM pre-trade risk control practices to be consistent with the requirement in proposed regulation 38.251(f). Finally, DCMs already report to Commission staff certain interruptions in orderly trading in markets, including electronic trading halts and significant system malfunctions; cyber security incidents or targeted threats that actually or potentially jeopardize automated system operation, reliability, security, or capacity; and activations of a business continuity-disaster plan, as required by rule 38.1051(e).⁸² Hence, the direct incremental cost of proposed rules 38.251(e) through 38.251(g) on DCMs is expected to be minimal.

New costs to adjust existing practices

To comply with rule 38.251(e), DCMs may be required to adjust their existing policies and procedures that involve increased monitoring of trading and communication patterns between market participants in their jurisdictions and the DCMs' matching engines.

Implementing these internal policies and procedures, and successfully communicating them to market participants, could involve costs for DCMs. Moreover, the Commission acknowledges that the DCM's monitoring efforts, and the associated required technologies, would need to be kept up to date, which could involve costs linked to the continual updating of these technologies and methodologies.

⁸² The Commission notes that the notification requirement under Commission regulation 38.1051(e) does not include the planned operation of DCM stop logic, velocity logic, and circuit breaker functionality, which also support orderly markets.

The Commission believes that DCMs may change their software to enable them to more efficiently capture additional information regarding participants subject to their jurisdiction to implement rules adopted pursuant to 38.251(e). The Commission expects the design, development, testing, and production release of a required software update to take 2,520 staff hours in total, which the Commission expects to be completed by more than one employee. To calculate the cost estimate for changes to DCM software, the Commission estimates the appropriate wage rate based on salary information for the securities industry compiled by the Department of Labor’s Bureau of Labor Statistics (“BLS”).⁸³ Commission staff arrived at an hourly rate of \$70.76 using figures from a weighted average of salaries and bonuses across different professions contained in the most recent BLS Occupational Employment and Wages Report (May 2019), multiplied by 1.3 to account for overhead and other benefits.⁸⁴ Commission staff chose this methodology to account for the variance in skillsets that may be used to plan, implement, and manage the required changes to DCM software. Using these estimates, the Commission would expect the software update to cost \$178,313 per DCM. The Commission acknowledges that this is just an estimate and the actual cost of such a software update would depend on the current status of the specific DCM’s information

⁸³ May 2019 National Industry-Specific Occupational Employment and Wage Estimates, NAICS 523000 - Securities, Commodity Contracts, and Other Financial Investments and Related Activities, available at https://www.bls.gov/oes/current/naics4_523000.htm.

⁸⁴ The Commission’s estimated appropriate wage rate is a weighted national average of mean hourly wages for the following occupations (and their relative weight): “computer programmer – industry: securities, commodity contracts, and other financial investment and related activities” (25 percent); “project management specialists and business operations specialists – industry: securities, commodity contracts, and other financial investment and related activities” (25 percent); “Software and Web Developers, Programmers, and Testers – industry: securities, commodity contracts, and other financial investment and related activities” (25 percent); and “Software Developers and Software Quality Assurance Analysts and Testers – industry: securities, commodity contracts, and other financial investment and related activities” (25 percent).

acquisition capabilities and the amount of additional information the DCM would have to collect as a result of proposed rule 38.251(e). To the extent that a DCM currently or partially captures the required information and data through its systems and technology, these costs would be incrementally lower.

The Commission acknowledges that any additional rules resulting from proposed regulation 38.251(e) will have to be submitted pursuant to part 40 when a DCM seeks to make amendments to its electronic trading risk requirements. The Commission expects a DCM to take an additional 48 hours annually (two submissions on average per year, 24 hours per submission) to submit these amendments to the Commission. In order to estimate the appropriate wage rate, the Commission used the salary information for the securities industry compiled by the BLS.⁸⁵ Commission staff arrived at an hourly rate of \$89.89 using figures from a weighted average of salaries and bonuses across different professions contained in the most recent BLS Occupational Employment and Wages Report (May 2019) multiplied by 1.3 to account for overhead and other benefits.⁸⁶ The Commission estimates this indirect cost to each DCM to be \$4,314.72 annually (48 x \$89.89). To the extent that a DCM currently has in place rules required under proposed 38.251(e), these costs would be incrementally lower.

The Commission can envision a scenario where a DCM might also need to update its trading systems to subject all electronic orders to exchange-based pre-trade risk

⁸⁵ May 2019 National Industry-Specific Occupational Employment and Wage Estimates, NAICS 523000 - Securities, Commodity Contracts, and Other Financial Investments and Related Activities, available at https://www.bls.gov/oes/current/naics4_523000.htm.

⁸⁶ The Commission estimated appropriate wage rate is a weighted national average of mean hourly wages for the following occupations (and their relative weight): “compliance officer – industry: securities, commodity contracts, and other financial investment and related activities” (50 percent); and “lawyer – legal services” (50 percent). Commission staff chose this methodology to account for the variance in skill sets that may be used to accomplish the collection of information.

controls to prevent, detect, and mitigate market disruptions or system anomalies as required by proposed rule 38.251(f). Depending on the amount of update required, the Commission anticipates the design, development, testing, and production release of the new trading system to take 8,480 staff hours in total, which the Commission expects to be covered by more than one employee. To calculate the cost estimate for updating a DCM's trading systems, the Commission estimates the appropriate wage rate based on salary information for the securities industry compiled by the BLS.⁸⁷ Commission staff arrived at an hourly rate of \$70.76 using figures from a weighted average of salaries and bonuses across different professions contained in the most recent BLS Occupational Employment and Wages Report (May 2019) multiplied by 1.3 to account for overhead and other benefits.⁸⁸ Commission staff chose this methodology to account for the variance in skill sets that may be used to plan, implement, and manage the required update to a DCM's trading system. Using these estimates, the Commission would expect the trading system update to cost \$600,036 to a DCM. The Commission would like to emphasize that this is just an estimate and the actual cost could be higher or lower. The cost may also vary across DCMs, as each DCM has the flexibility to apply the specific controls that the DCM deems reasonably designed to prevent, detect, and mitigate market disruptions or

⁸⁷ May 2019 National Industry-Specific Occupational Employment and Wage Estimates, NAICS 523000 - Securities, Commodity Contracts, and Other Financial Investments and Related Activities, available at https://www.bls.gov/oes/current/naics4_523000.htm.

⁸⁸ The Commission's estimated appropriate wage rate is a weighted national average of mean hourly wages for the following occupations (and their relative weight): "computer programmer – industry: securities, commodity contracts, and other financial investment and related activities" (25 percent); "project management specialists and business operations specialists – industry: securities, commodity contracts, and other financial investment and related activities" (25 percent); "Software and Web Developers, Programmers, and Testers – industry: securities, commodity contracts, and other financial investment and related activities" (25 percent); and "Software Developers and Software Quality Assurance Analysts and Testers – industry: securities, commodity contracts, and other financial investment and related activities" (25 percent).

system anomalies. In addition, the Commission would further note that to the extent that a DCM currently or partially has in place pre-trade risk controls consistent with proposed 38.251(f), these costs would be incrementally lower.

Proposed regulation 38.251(g) would require a DCM to notify promptly Commission staff of a significant disruption to its electronic trading platform(s) and provide timely information on the causes and remediation. The Commission expects that there may be incremental costs to DCMs from proposed regulation 38.251(g) in the form of analysis regarding which disruptions could be significant enough to report, maintain, and archive the relevant data, as well as the costs associated with the act of reporting the disruptions. The Commission currently expects every DCM to have the necessary means to communicate with the Commission promptly, and therefore, does not expect any additional communication costs. The Commission expects DCMs to incur a minimal cost in determining what a significant disruption could be and preparing information on its causes and remediation. The Commission does not expect this cost to be significant, because the Commission believes DCMs should already have the means necessary to identify the causes of market disruptions and have plans for remediation. To the extent that complying with regulation 38.251(g) requires a DCM to incur additional recordkeeping and reporting burdens, the Commission estimates these additional recordkeeping requirements to require approximately 100 hours per DCM per year and the additional reporting requirements to require approximately 250 hours per DCM per year (five hours per report and an estimated 50 reports additionally per DCM). In calculating the cost estimates for recordkeeping and reporting, the Commission estimates the appropriate wage rate based on salary information for the securities industry compiled

by the BLS.⁸⁹ For the reporting cost, Commission staff arrived at an hourly rate of \$76.44 using figures from a weighted average of salaries and bonuses across different professions contained in the most recent BLS Occupational Employment and Wages Report (May 2019) multiplied by 1.3 to account for overhead and other benefits.⁹⁰ In calculating the cost estimate for recordkeeping, the Commission staff arrived at an hourly rate of \$71.019 using figures from the most recent BLS Occupational Employment and Wages Report (May 2019) multiplied by 1.3 to account for overhead and other benefits.⁹¹ The Commission estimates the cost for additional recordkeeping to a DCM to be \$7,101.90 (100 x \$71.019) annually and the cost for additional reporting to a DCM to be \$19,110 (250 x \$76.44) annually. As noted above, the exact cost will depend on the software update and could be higher or lower than the Commission's estimate.

To the extent that DCMs would need to update their rules and internal processes to comply with regulation 38.251(e) through 38.251(g) and the associated Acceptable Practices, the Commission expects that DCMs also may need to update or supplement their compliance program, which would involve additional costs. However, the Commission does not expect these costs to be significant. The Commission believes that some DCMs may need to hire an additional full-time compliance staff member to address

⁸⁹ May 2019 National Industry-Specific Occupational Employment and Wage Estimates, NAICS 523000 - Securities, Commodity Contracts, and Other Financial Investments and Related Activities, available at https://www.bls.gov/oes/current/naics4_523000.htm.

⁹⁰ The Commission estimated appropriate wage rate is a weighted national average of mean hourly wages for the following occupations (and their relative weight): "computer programmer – industry: securities, commodity contracts, and other financial investment and related activities" (25 percent); "compliance officer – industry: securities, commodity contracts, and other financial investment and related activities" (50 percent); and "lawyer – legal services" (25 percent). Commission staff chose this methodology to account for the variance in skill sets that may be used to accomplish the required reporting.

⁹¹ The Commission estimated appropriate wage rate is the mean hourly wages for "database administrators and architects." Commission staff chose this methodology to account for the variance in skill sets that may be used to accomplish the collection of information.

the additional compliance needs associated with the proposed regulation. Assuming that the average annual salary of each compliance officer is \$94,705, the Commission estimates the incremental annual compliance costs to a DCM that needs to hire an additional compliance officer to be \$119,340.⁹² However, the Commission notes that the exact compliance needs may vary across DCMs, and some DCMs may already have adequate compliance programs that can handle any rule updates and internal processes required to comply with regulation 38.251(e) through 38.251(g), and therefore the actual compliance costs may be higher or lower than the Commission's estimates.

Cost of periodically updating risk management practices

The Commission expects the trading methods and technologies of market participants to change over time, requiring DCMs to adjust their rules accordingly. As trading methodologies and connectivity measures evolve, it is expected that new ways of potential market disruptions and system anomalies could surface. To that end, the Commission believes full compliance would require a DCM to implement periodic evaluation of its entire electronic trading marketplace and updates of the exchange-based pre-trade risk controls to prevent, detect, and mitigate market disruptions or system anomalies, as well as updates of the appropriate definitions of market disruptions and system anomalies. Therefore, rules imposed as a result of proposed regulation 38.251(e) through 38.251(g) would need to be flexible and fluid, and potentially updated as needed, which may involve additional costs. Moreover, such rule changes would result in a cost

⁹² In calculating this cost estimate for reporting, the Commission estimates the appropriate annual wage for a compliance officer based on salary information for the securities industry compiled by the BLS. Commission staff used the annual wage of \$91,800, which reflects the average annual salary for a compliance officer contained in the most recent BLS Occupational Employment and Wages Report (May 2019), and multiplied it by 1.3 to account for overhead and other benefits.

increase associated with the rise in the number of rule filings that DCMs would have to prepare and submit to the Commission.

Costs to market participants

To the extent the rules adopted by DCMs as a result of the proposed regulation change frequently, the Commission can envision a situation where market participants would need to adjust to new rules frequently. While these adjustments might carry some costs for market participants, such as potential added delays to their trading activity due to added pre-trade controls, the Commission expects these changes to be communicated to the market participants by DCMs with enough implementation time so as to minimize the burden on market participants and their trading strategies. Moreover, to the extent a DCM's policies and procedures require market participants to report changes to their connection processes, trading strategies, or any other adjustments the DCM deems required, there could be some cost to the market participants. Finally, market participants may feel the need to upgrade their risk management practices as a response to DCMs' updated risk management practices driven by the proposed rules. The Commission recognizes that part of the costs to market participants might also come from needing to update their systems and potentially adjust the software they use for risk management, trading, and reporting. To the extent that market participants currently comply with DCM rules and regulations regarding pre-trade risk controls and market disruption protocols, these costs may be somewhat mitigated under the proposal.

Regulatory arbitrage

The proposed rules offer DCMs the flexibility to address market disruptions and system anomalies as they relate to their particular markets and market participants'

trading activities. Similarly, DCMs are also given the flexibility to decide how to apply the proposed requirements in their respective markets. This flexibility could result in differences across DCMs, potentially contributing to regulatory arbitrage. For example, DCMs' practices could differ in the information collected from market participants; the rules applied to prevent, detect, and mitigate market disruptions or system anomalies; and the intensity of pre-trade controls. The parameters for establishing disruptive behavior could be defined differently by the various DCMs, which might lead to differing levels of exchange-based pre-trade risk controls. The Commission acknowledges that to the extent there is potential for market participants to choose between DCMs, those DCMs with lower information collection requirements and potentially less stringent pre-trade risk controls could appear more attractive to certain market participants. All or some of these factors could create the potential for market participants to move their trading from DCMs with potentially more stringent risk controls to DCMs with less stringent controls, which could cost certain DCMs business. While the Commission recognizes that this kind of regulatory arbitrage could cause liquidity to move from one DCM to another, potentially impairing (benefiting) the price discovery of the contract with reduced (increased) liquidity, the Commission does not expect this to occur with any real frequency. First, the Commission notes that liquidity for a given contract in futures markets tends to concentrate in one DCM. This means that futures markets are less susceptible to this type of regulatory arbitrage. Second, while an individual DCM decides the exchange-based pre-trade risk controls for its markets, those risk controls must be effective. The Commission does not believe that differences in the application of the proposed regulation across DCMs would be substantial enough to induce market

participants to switch to trading at a different DCM, even if there were two DCMs trading similar enough contracts. For example, DCMs currently apply various pre-trade controls to comply with rule 38.255 requirements for risk controls for trading, but the Commission does not have any evidence that DCMs compete on pre-trade controls. The Commission expects DCMs to approach the setting of their practices to comply with this proposed regulation in a similar manner.

Request for Comment

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?

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.

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

4. Benefits

Minimize disruptive behaviors associated with electronic trading and ensure sound financial markets

The Commission believes that the proposed rules are crucial for the integrity and resilience of financial markets, as the proposed rules would ensure that DCMs have the

ability to prevent, detect and mitigate most, if not all, disruptive behaviors associated with electronic trading. The proposed changes to regulation 38.251(e) require DCMs to adopt and implement rules governing market participants subject to its jurisdiction such that market disruptions or system anomalies associated with electronic trading can be minimized. This would allow markets to operate smoothly and to continue functioning as efficient platforms for risk transfer, as well as allowing for healthy price discovery.

The Commission expects proposed regulation 38.251(f) to subject all electronic orders to a DCM's exchange-based pre-trade risk controls. The Commission expects this to benefit the markets as well as the market participant sending orders to the exchanges. First, by preventing orders that could cause market disruptions or system anomalies through exchange-based pre-trade risk controls, proposed regulation 38.251(f) allows the markets to operate orderly and efficiently. This benefits traders in the markets, market participants utilizing price discovery in the markets, as well as traders in related markets. Second, proposed regulation 38.251(f) provides market participants sending orders to a DCM with an additional layer of protection through the implementation of exchange-based pre-trade risk controls. If an unintentional set of messages were to breach the risk controls of market participants and FCMs, proposed regulation 38.251(f) could prevent those messages from reaching a DCM and potentially resulting in unwanted transactions. This benefits the market participants, as well as their FCMs, by saving them from the obligation of unwanted and unintended transactions.

Proposed regulation 38.251(g) ensures that significant disruptions will be communicated to the Commission staff promptly, as well as their causes and eventual remediation. The Commission believes proposed regulation 38.251(g) will benefit the

markets and market participants by strengthening their financial soundness and promoting the resiliency of derivatives markets by allowing the Commission to stay informed of any potential market disruptions effectively and promptly. If needed, the Commission's timely action in the face of market disruptions could help markets recover faster and stronger.

Finally, proposed regulations 38.251(e) through 38.251(g) are likely to benefit the public by promoting sound risk management practices across market participants and preserving the financial integrity of markets so that markets can continue to fulfill their price discovery role.

Value of flexibility across DCMs

The Commission believes that DCMs have markets with different trading structures and participants with varying trading patterns. It is possible that what one DCM deems to be the paramount disruptive behavior for its market could be different for another DCM. The Commission's principles-based approach to proposed regulations 38.251(e) and 38.251(f) allows DCMs the flexibility to impose the most efficient and effective rules and pre-trade risk controls for their respective jurisdictions. The Commission believes such flexibility, particularly through the proposed Acceptable Practices, benefits DCMs by allowing them to adopt and implement effective and efficient measures reasonably designed to achieve the objectives of the Risk Principles. Without such flexibility, DCMs would need to comply with prescriptive rules that may not be as effective in preventing disruptive trading and market anomalies and that may potentially involve higher compliance costs.

Direct benefits to market participants

Proposed rule 38.251(e) requires DCMs to adopt and implement rules to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. To this end, the proposed Acceptable Practices for proposed rule 38.251(f) would enable DCMs to subject all electronic orders to exchange-based pre-trade risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies. This approach will assist in preventing or mitigating market disruptions and protect the effectiveness of financial markets to continue providing the services of risk transfer and price transparency to all market participants. Moreover, the Commission believes that requiring DCMs to design these rules could incentivize market participants themselves to strengthen their own risk management practices as a response to potential changes in pre-trade risk controls that all electronic orders will be subject to.

Facilitate Commission oversight

The Commission believes the implementation of the proposed rules would facilitate the Commission's capability to effectively monitor the market. Moreover, proposed rule 38.251(g) will result in DCMs informing the Commission promptly of any significant market disruptions and remediation plans. The Commission believes this would allow it to also take steps to contain a disruption and prevent the disruption from impacting other markets or market participants. Thus, the proposed rules would facilitate the Commission's oversight and its ability to monitor and assess market disruptions across all DCMs.

Finally, the Commission expects that the proposed rule would better incentivize DCMs to recognize market disruptions and examine remediation plans in a timely fashion.

Request for Comment

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

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

5. 15(a) Factors:

a. Protection of market participants and the public

Proposed rules 38.251(e) through 38.251(g) are intended to protect market participants and the public from potential market disruptions due to electronic trading. The proposal is expected to benefit market participants and the public by requiring DCMs to adopt and implement rules addressing the market disruptions and system anomalies associated with electronic trading, subject all electronic orders to specifically-designed exchange-based pre-trade risk controls, and promptly report the causes and remediation of significant market disruptions. All of these measures create a safer marketplace for market participants to continue trading without major interruptions and allow the public to benefit from the information generated through a well-functioning marketplace.

b. Efficiency, competitiveness, and financial integrity of DCMs

The Commission believes that proposed rules 38.251(e) through 38.251(g) will enhance the financial integrity of DCMs by requiring DCMs to implement rules and risk

controls to address market disruptions and system anomalies associated with electronic trading. However, the Commission also acknowledges that market participants' efficiency of trading might be hindered due to their orders taking longer to reach the matching engine as a result of additional pre-trade risk controls. In addition, the Commission can envision a scenario where the flexibility provided to DCMs in designing and implementing rules to prevent, detect, and mitigate market disruptions and system anomalies, and the differences between the updated pre-trade risk controls and existing DCM risk control rules, could potentially lead to regulatory arbitrage between DCMs. To the extent that there are significant differences in those practices set by competing DCMs, market participants might choose to trade in the DCM with least stringent rules if competing DCMs offer the same or relatively similar products. The Commission acknowledges that competitiveness across DCMs might be hurt as a result. However, as discussed above, the Commission does not believe that differences in the application of the proposed regulation across DCMs would be substantial enough to induce market participants to switch to trading at a different DCM, even if there were two DCMs trading similar enough contracts.

c. Price discovery

The Commission expects price discovery to improve as a result of proposed rules 38.251(e) through 38.251(g), especially due to improved market functioning through the implementation of targeted pre-trade risk controls and rules. The Commission expects the new regulation to assist with the prevention and mitigation of market disruptions due to electronic trading, leading markets to provide more consistent price discovery services. However, as noted above, adoption and implementation of rules pursuant to 38.251(e)

and pre-trade risk controls implemented by DCMs could be different across DCMs. As a result, the improvements in price discovery across DCMs markets are not likely to be uniform.

d. Sound risk management practices

The Commission expects proposed rules 38.251(e) through 38.251(g) to help promote and ensure better risk management practices of both DCMs and their market participants. The Commission expects DCMs and market participants to focus on, and potentially update, their risk management practices. Additionally, the Commission believes that the requirement for DCMs to notify the Commission staff regarding the cause of a significant disruption to their respective electronic trading platforms would also provide reputational incentives for both DCMs and their market participants to focus on, and improve, risk management practices.

e. Other public interest considerations

The Commission does not expect proposed rules 38.251(e) through 38.251(g) to have any significant costs or benefits associated with any other public interests.

D. Antitrust considerations

Section 15(b) of the CEA requires the Commission to take into consideration the public interest to be protected by the antitrust laws and endeavor to take the least anticompetitive means of achieving the purposes of CEA, in issuing any order or adopting any Commission rule or regulation (including any exemption under section 4(c) or 4c(b)), or in requiring or approving any bylaw, rule, or regulation of a contract market or registered futures association established pursuant to section 17 of the CEA.⁹³

⁹³ 7 U.S.C. 19(b).

The Commission believes that the public interest to be protected by the antitrust laws is generally to protect competition.

The Commission has considered the proposal to determine whether it is anticompetitive and has preliminarily identified no anticompetitive effects. The Commission requests comment on whether the proposal is anticompetitive and, if it is, what the anticompetitive effects are.

Because the Commission has preliminarily determined that the proposal is not anticompetitive and has no anticompetitive effects, the Commission has not identified any less anticompetitive means of achieving the purposes of the CEA. The Commission requests comment on whether there are less anticompetitive means of achieving the relevant purposes of the CEA that would otherwise be served by adopting the proposal.

Request for Comment

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

List of Subjects in 17 CFR Part 38

Commodity futures, Designated contract markets, Reporting and recordkeeping requirements.

For the reasons stated in the preamble, the Commodity Futures Trading Commission proposes to amend 17 CFR part 38 as follows:

PART 38—DESIGNATED CONTRACT MARKETS

1. The authority citation for part 38 continues to read as follows:

Authority: 7 U.S.C. 1a, 2, 6, 6a, 6c, 6d, 6e, 6f, 6g, 6i, 6j, 6k, 6l, 6m, 6n, 7, 7a-2, 7b, 7b-1, 7b-3, 8, 9, 15, and 21, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, 124 Stat. 1376.

2. In § 38.251, republish introductory text and add paragraphs (e) through (g) to read as follows:

§ 38.251 General requirements.

A designated contract market must:

* * * * *

(e) 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;

(f) Subject all electronic orders to exchange-based pre-trade risk controls to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading; and

(g) Promptly notify Commission staff of any significant disruptions to its electronic trading platform(s) and provide timely information on the causes and remediation.

3. In appendix B to part 38, republish the text of Core Principle 4 of section 5(d) of the Act: Prevention of Market Disruption and add paragraph (b)(6) to read as follows:

Appendix B to Part 38—Guidance on, and Acceptable Practices in, Compliance with Core Principles

* * * * *

Core Principle 4 of section 5(d) of the Act: PREVENTION OF MARKET DISRUPTION.—The board of trade shall have the capacity and responsibility to prevent manipulation, price distortion, and disruptions of the delivery or cash-settlement process

through market surveillance, compliance, and enforcement practices and procedures, including—

(A) Methods for conducting real-time monitoring of trading; and

(B) Comprehensive and accurate trade reconstructions.

(a) *Guidance.* The detection and prevention of market manipulation, disruptions, and distortions should be incorporated into the design of programs for monitoring trading activity. Monitoring of intraday trading should include the capacity to detect developing market anomalies, including abnormal price movements and unusual trading volumes, and position-limit violations. The designated contract market should have rules in place that allow it broad powers to intervene to prevent or reduce market disruptions. Once a threatened or actual disruption is detected, the designated contract market should take steps to prevent the disruption or reduce its severity.

(2) *Additional rules required.* A designated contract market should adopt and enforce any additional rules that it believes are necessary to comply with the requirements of subpart E of this part.

(b) *Acceptable Practices—(1) General Requirements.* Real-time monitoring for market anomalies and position-limit violations are the most effective, but the designated contract market may also demonstrate that it has an acceptable program if some of the monitoring is accomplished on a T+1 basis. An acceptable program must include automated trading alerts to detect market anomalies and position-limit violations as they develop and before market disruptions occur or become more serious. In some cases, a designated contract market may demonstrate that its manual processes are effective.

(2) *Physical-delivery contracts.* For physical-delivery contracts, the designated contract market must demonstrate that it is monitoring the adequacy and availability of the deliverable supply, which, if such information is available, includes the size and ownership of those supplies and whether such supplies are likely to be available to short traders and saleable by long traders at the market value of those supplies under normal cash marketing conditions. Further, for physical-delivery contracts, the designated contract market must continually monitor the appropriateness of a contract's terms and conditions, including the delivery instrument, the delivery locations and location differentials, and the commodity characteristics and related differentials. The designated contract market must demonstrate that it is making a good-faith effort to resolve conditions that are interfering with convergence of its physical-delivery contract to the price of the underlying commodity or causing price distortions or market disruptions, including, when appropriate, changes to contract terms.

(3) *Cash-settled contracts.* At a minimum, an acceptable program for monitoring cash-settled contracts must include access, either directly or through an information-sharing agreement, to traders' positions and transactions in the reference market for traders of a significant size in the designated contract market near the settlement of the contract.

(4) *Ability to obtain information.* With respect to the designated contract market's ability to obtain information, a designated contract market may limit the application of the requirement to keep and provide such records only to those that are reportable under its large-trader reporting system or otherwise hold substantial positions.

(5) *Risk controls for trading.* An acceptable program for preventing market disruptions must demonstrate appropriate trade risk controls, in addition to pauses and halts. Such controls must be adapted to the unique characteristics of the markets to which they apply and must be designed to avoid market disruptions without unduly interfering with that market's price discovery function. The designated contract market may choose from among controls that include: pre-trade limits on order size, price collars or bands around the current price, message throttles, and daily price limits, or design other types of controls. Within the specific array of controls that are selected, the designated contract market also must set the parameters for those controls, so long as the types of controls and their specific parameters are reasonably likely to serve the purpose of preventing market disruptions and price distortions. If a contract is linked to, or is a substitute for, other contracts, either listed on its market or on other trading venues, the designated contract market must, to the extent practicable, coordinate its risk controls with any similar controls placed on those other contracts. If a contract is based on the price of an equity security or the level of an equity index, such risk controls must, to the extent practicable, be coordinated with any similar controls placed on national security exchanges.

(6) *Market disruptions and system anomalies associated with electronic trading.* To comply with § 38.251(e), the contract market must adopt and implement rules that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. To comply with § 38.251(f), the contract market must subject all electronic orders to exchange-based pre-trade risk controls that

are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies.

* * * * *

Issued in Washington, DC, on June 29, 2020, by the Commission.

Christopher Kirkpatrick,

Secretary of the Commission.

NOTE: The following appendices will not appear in the Code of Federal Regulations.

Appendices to Electronic Trading Risk Principles – Commission Voting Summary, Chairman’s Statement, and Commissioners’ Statements

Appendix 1 – Commission Voting Summary

On this matter, Chairman Tarbert and Commissioners Quintenz, Stump, and Berkovitz voted in the affirmative. Commissioner Behnam voted in the negative.

Appendix 2 – Supporting Statement of Chairman Heath P. Tarbert

The mission of the CFTC is to promote the integrity, resilience, and vibrancy of U.S. derivatives markets through sound regulation. We cannot achieve this mission if we rest on our laurels—particularly in relation to the ever evolving technology that makes U.S. derivatives markets the envy of the world. What is sound regulation today may not be sound regulation tomorrow.

I am reminded of the paradoxical observation of Giuseppe di Lampedusa in his prize-winning novel, *The Leopard*:

If we want things to stay as they are, things will have to change.¹

¹ Giuseppe Tomasi di Lampedusa, *The Leopard* (Everyman’s Library Ed. 1991) at p. 22.

While the novel focuses on the role of the aristocracy amid the social turbulence of 19th century Sicily, its central thesis—that achieving stability in changing times itself requires change—can be applied equally to the regulation of rapidly changing financial markets.

Today we are voting on a proposal to address the risk of disruptions to the electronic markets operated by futures exchanges. The risks involved are significant; disruptions to electronic trading systems can prevent market participants from executing trades and managing their risk. But how we address those risks—and the implications for the relationship between the Commission and the exchanges we regulate—is equally significant.

The Evolution of Electronic Trading

A floor trader from the 1980s and even the 1990s would scarcely recognize the typical futures exchange of the 21st Century. The screaming and shouting of buy and sell orders reminiscent of the film *Trading Places* has been replaced with silence, or perhaps the monotonous humming of large data centers. For over the past two decades, our markets have moved from open outcry trading pits to electronic platforms. Today, 96 percent of trading occurs through electronic systems, bringing with it the price discovery and hedging functions foundational to our markets.

By and large, this shift to electronic trading has benefited market participants. Spreads have narrowed,² liquidity has improved,³ and transaction costs have dropped.⁴

² Frank, Julieta and Philip Garcia, “Bid-Ask Spreads, Volume, and Volatility: Evidence from Livestock Markets,” *AMERICAN JOURNAL OF AGRICULTURAL ECONOMICS*, Vol. 93, Issue 1, page 209 (January 2011).

³ Henderschott, Terrence, Charles M. Jones, and Albert K. Menkveld, “Does Algorithmic Trading Improve Liquidity?” *JOURNAL OF FINANCE*, Volume 66, Issue 1, page 1 (February 2011).

And the most unexpected benefit is that electronic markets have been able to stay open and function smoothly during the Covid-19 lockdowns. By comparison, traditional open outcry trading floors such as options pits and the floor of the New York Stock Exchange were forced to close for an extended time. Without the innovation of electronic trading, our financial markets would almost certainly have seized up and suffered even greater distress.

But like any technological innovation, electronic trading also creates new and unique risks. Today’s proposal is informed by examples of disruptions in electronic markets caused by both human error as well as malfunctions in automated systems—disruptions that would not have occurred in open outcry pits. For instance, “fat finger” orders mistakenly entered by people, or fully automated systems inadvertently flooding matching engines with messages, are two sources of market disruptions unique to electronic markets.

Past CFTC Attempts to Address Electronic Trading Risks

The CFTC has considered the risks associated with electronic trading during much of the last decade. Seven years ago, a different set of Commissioners issued a concept release asking for public comment on what changes should be made to our regulations in light of the novel issues raised by electronic trading. Out of that concept release, the Commission later proposed Regulation AT. For all its faults, Regulation AT drove a very healthy discussion about the risks that should be addressed and the best way to do so.

⁴ Onur, Esen and Eleni Gousgounis, “The End of an Era: Who Pays the Price when the Livestock Futures Pits Close?”, Working paper, Commodity Futures Trading Commission Office of the Chief Economist.

Regulation AT was based on the assumption that automated trading, a subset of electronic trading, was inherently riskier than other forms of trading. As a result, Regulation AT sought to require certain automated trading firms to register with the Commission notwithstanding that they did not hold customer funds or intermediate customer orders. Most problematically, Regulation AT also would have required those firms to produce their source code to the agency upon request and without subpoena.

Regulation AT also took a prescriptive approach to the types of risk controls that exchanges, clearing members, and trading firms would be required to place on order messages. But this list was set in 2015. In effect, Regulation AT would have frozen in time a set of controls that all levels of market operators and market participants would have been required to place on trading. Since that list was proposed, financial markets have faced their highest volatility on record and futures market volumes have increased by over 50 percent.⁵ Improvements in technology and computer power have been profound—Moore’s Law would predict that computing power would have increased at least ten-fold in that time.⁶ Of course, I commend my predecessors for focusing on the risks that electronic trading can bring. But times change, and Regulation AT would not have changed with them.

An Evolving CFTC for Evolving Markets

In withdrawing Regulation AT, the CFTC is consciously moving away from the registration requirements and source code production. But in voting to advance the Risk

⁵ Futures Industry Association, “A record year for derivatives,” (March 5, 2019), available at <https://www.fia.org/articles/record-year-derivatives>.

⁶ “Moore’s Law” predicts that the number of transistors in an integrated circuit doubles about every two years, and has held generally true since 1965. *See generally* Sneed, Annie, “Moore’s Law Keeps Going, Defying Expectations,” SCIENTIFIC AMERICAN (May 19, 2015).

Principles proposal outlined further below, the CFTC is committing to address risk posed by electronic trading while strengthening our longstanding principles-based approach to overseeing exchanges.

The markets we regulate are changing. To maintain our regulatory functions, the CFTC must either halt that change or change our agency. Swimming against the tide of developments like electronic markets is not an option, nor should it be. The markets exist to serve the needs of market participants, not the regulator. If a technological change improves the functioning of the markets, we should embrace it. In fact, one of this agency's founding principles is that CFTC should "foster responsible innovation."⁷ Applying this reasoning alongside the overarching theme of *The Leopard* leads us to a single conclusion: As our markets evolve, the only real course of action is to ensure that the CFTC's regulatory framework evolves with it.

The Need for Principles-Based Regulation

So then how do we as a regulator change with the times while still fulfilling our statutory role overseeing U.S. derivatives markets? I recently published an article setting out a framework for addressing situations such as this.⁸ I believe that principles-based regulations can bring simplicity and flexibility while also promoting innovation when applied in the right situations. Such an approach can also create a better supervisory model for interaction between the regulator and its regulated firms—but only so long as that oversight is not toothless.

⁷ Commodity Exchange Act, section 3(b), 7 U.S.C. 3(b).

⁸ Tarbert, Heath P., "Rules for Principles and Principles for Rules: Tools for Crafting Sound Financial Regulation," Harv. Bus. L. Rev. (June 15, 2020). Vol. 10 (<https://www.hblr.org/volume-10-2019-2020/>)

There are a variety of circumstances in which I believe principles-based regulation would be most effective. Regulations on how exchanges manage the risks of electronic trading are a prime example. This is about risk management practices at sophisticated institutions subject to an established and ongoing supervisory relationship. But it is also an area where regulated entities have greater understanding than the regulator about the risks they face and greater knowledge about how to address those risks. As a result, exchanges need flexibility in how they manage risks as they constantly evolve.

At the same time, principles-based regulation is not “light touch” regulation. Without the ability to monitor compliance and enforce the rules, principles-based regulation would be toothless. Principles-based regulation of exchanges can work because the CFTC and the exchanges have constant interaction that engenders a degree of mutual trust. The CFTC—as overseen by our five-member Commission—has tools to monitor how the exchanges implement principles-based regulations through reviews of license applications and rule changes, as well as through periodic examinations and rule enforcement reviews.

Monitoring compliance alone is not enough. The regulator also needs the ability to enforce against non-compliance. Principles-based regimes ultimately give discretion to the regulated entity to find the best way to achieve a goal, so long as that method is objectively reasonable. To that end, the CFTC has a suite of tools to require changes through formal action, escalating from denial of rule change requests, to enforcement actions, to license revocations. The CFTC consistently needs to address the effectiveness and appropriateness of these levers to make sure the exchanges are meeting their

regulatory objectives. And given that exchanges will be judged on a reasonableness standard, it must be the Commission itself—based on a recommendation from CFTC staff⁹—who ultimately decides whether an exchange has been objectively unreasonable in complying with our principles.

Proposed Risk Principles for Electronic Trading

This brings us to today’s proposed Risk Principles. The proposal centers on a straightforward issue that I think we can all agree is important for our regulations to address. Namely, the proposal requires exchanges to take steps to prevent, detect, and mitigate market disruptions and system anomalies associated with electronic trading.

The disruptions we are concerned about can come from any number of causes, including:

excessive messages,

fat finger orders, or

the sudden shut off of order flow from a market maker.

The key attribute of the disruptions addressed in this proposal is that they arise because of electronic trading.

To be sure, our current regulations do require exchanges to address market disruptions. But the focus of those rules has generally been on disruptions caused by sudden price swings and volatility. In effect, the proposed Risk Principles would expand

⁹ CFTC Staff conduct regular examinations and reviews of our registered entities, including exchanges and clearinghouses. As part of those examinations and reviews, Staff may identify issues of material non-compliance with regulations as well as recommendations to bring an entity into compliance. Ultimately, however, the Commission itself must accept an examination report or rule enforcement review report before it can become final, including any findings of non-compliance. Likewise, Staff are asked to make recommendations regarding license applications, reviews of new products and rules, and a variety of other Commission actions, although ultimate authority lies with the Commission.

the term “market disruptions” to cover instances where market participants’ ability to access the market or manage their risks is negatively impacted by something other than price swings. This could include slowdowns or closures of gateways into the exchange’s matching engine caused by excessive messages submitted by a market participant. It could also include instances when a market maker’s systems shut down and the market maker stops offering quotes.

As noted in the preamble to the proposal, exchanges have worked diligently to address emerging risks associated with electronic trading. Different exchanges have put in place rules such as messaging limits and penalties when messages exceed filled trades by too large a ratio. Exchanges also may conduct due diligence on participants using certain market access methods and may require systems testing ahead of trading through those methods.

It is not surprising that exchanges have developed rules and risk controls that comport with our proposed Risk Principles. The Commission, exchanges, and market participants have a common interest in ensuring that electronic markets function properly. Moreover, this is an area where exchanges are likely to possess the best understanding of the risks presented and have control over how their own systems operate. As a result, exchanges have the incentive and the ability to address the risks arising from electronic trading. Principles-based regulations in this area will ensure that the exchanges have reasonable discretion to adjust their rules and risk controls as the situation dictates, not as the regulator dictates.

The three Risk Principles encapsulate this approach. First, exchanges must have rules to prevent, detect, and mitigate market disruptions and system anomalies associated

with electronic trading. In other words, an exchange should take a macro view when assessing potential market disruptions, which can include fashioning rules applicable to all traders governing items such as onboarding, systems testing, and messaging policies. Second, exchanges must have risk controls on all electronic orders to address those same concerns. Third, exchanges must notify the CFTC of any significant market disruptions and give information on mitigation efforts.

Importantly, implementation of the Risk Principles will be subject to a reasonableness standard. The proposed Acceptable Practices clarify that an exchange would be in compliance if its rules and its risk controls are reasonably designed to meet the objectives of preventing, detecting, and mitigating market disruptions and system anomalies. The Commission will have the ability to monitor how the exchanges are complying with the Principles, and will have avenues through Commission action to sanction non-compliance.

Framework for Future Regulation

I hope that today's Risk Principles proposal will serve as a framework for future CFTC regulations. Electronic trading presents a prime example of where principles-based regulation—as opposed to prescriptive rule sets—is more likely to result in sound regulation over time. Through thoughtful analysis of the regulatory objective we aim to achieve, the nature of the market and technology we are addressing, the sophistication of the parties involved, and the nature of the CFTC's relationship with the entity being regulated, we can identify what areas are best for a prescriptive regulation or a principles-based regulation.¹⁰ In the present context, a principles-based approach—setting forth

¹⁰ Tarbert, at 11-17.

concrete objectives while affording reasonable discretion to the exchanges—provides flexibility as electronic trading practices evolve, while maintaining sound regulation. In sum, it recognizes that things will have to change if we want things to stay as they are.¹¹

Appendix 3 – Supporting Statement of Commissioner Brian Quintenz

I support today’s proposal that would require designated contract markets (DCMs) to adopt rules that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. It would also require DCMs to subject all electronic orders to pre-trade risk controls that are reasonably designed to prevent, detect and mitigate market disruptions and to provide prompt notice to the Commission in the event the platform experiences any significant disruptions. I believe all DCMs have already adopted regulations and pre-trade risk controls designed to address the risks posed by electronic trading. As I have noted previously, many—if not all—of the risks posed by electronic trading are already being effectively addressed through the market’s incentive structure, including exchanges’ and firms’ own self-interest in implementing best practices. Therefore, today’s proposal merely codifies the existing market practice of DCMs to have reasonable controls in place to mitigate electronic trading risks.

Significantly, the proposal puts forth a principles-based approach, allowing DCM trading and risk management controls to continue to evolve with the trading technology itself. As we have witnessed over the past decade, risk controls are constantly being updated and improved to respond to market developments. It is my view that these continuous enhancements are made possible because exchanges and firms have the

¹¹ Di Lampedusa, at 22.

flexibility and incentives to evolve and hold themselves to an ever-higher set of standards, rather than being held to a set of prescriptive regulatory requirements which can quickly become obsolete. By adopting a principles-based approach, the proposal would provide exchanges and market participants with the flexibility they need to innovate and evolve with technological developments. DCMs are well-positioned to determine and implement the rules and risk controls most effective for their markets. Under the proposed rule, DCMs would be required to adopt and implement rules and risk controls that are objectively reasonable. The Commission would monitor DCMs for compliance and take action if it determines that the DCM's rules and risk controls are objectively unreasonable.

The Technology Advisory Committee (TAC), which I am honored to sponsor, has explored the risks posed by electronic trading at length. In each of those discussions, it has become obvious that both DCMs and market participants take the risks of electronic trading seriously and have expended enormous effort and resources to address those risks.

For example, at one TAC meeting, we heard how the CME Group has implemented trading and volatility controls that complement, and in some cases exceed, eight recommendations published by the International Organization of Securities Commissions (IOSCO) regarding practices to manage volatility and preserve orderly trading. We also heard from the Futures Industry Association (FIA) about current best practices for electronic trading risk controls. FIA reported that through its surveys of exchanges, clearing firms, and trading firms, it has found widespread adoption of market integrity controls since 2010, including price banding and exchange market halts. FIA

also previewed some of the next generation controls and best practices currently being developed by exchanges and firms to further refine and improve electronic trading systems. The Intercontinental Exchange (ICE) also presented on the risk controls ICE currently implements across all of its exchanges, noting how its implementation of controls was fully consistent with FIA's best practices. These presentations emphasize how critical it is for the Commission to adopt a principles-based approach that enables best practices to evolve over time. I believe the proposal issued today adopts such an approach and provides DCMs with the flexibility to continually improve their risk controls in response to technological and market advancements. I look forward to comment on the proposal.

It is also long overdue for the Commission to withdraw the Regulation Automated Trading Proposal and Supplemental Proposal (Regulation AT NPRMs). The Regulation AT NPRMs would have required certain types of market participants, based purely on their trading functionality, strategies or market access methods, to register with the Commission, notwithstanding that they did not act as intermediaries in the markets or hold customer funds. Moreover, the NPRMs proposed extremely prescriptive requirements for the types of risk controls that exchanges, futures commission merchants, and trading firms would be required to implement. Lastly, by withdrawing these NPRMs, the market and public can finally consider as dead the prior Commission's significant, and likely unconstitutional, overreach on accessing firms' proprietary source code and protected intellectual property without a subpoena.

In my view, the Regulation AT NPRMs were poorly crafted and flawed public policy that failed to understand the true risks of the electronic trading environment and

the intrinsic incentives that exchanges and market participants have to mitigate and address those risks. I am pleased the Commission is officially rejecting the policy rationales and regulatory requirements proposed in the Regulation AT NPRMs and is instead embracing the principles-based approach of today's proposal.

Appendix 4 – Statement of Dissent of Commissioner Rostin Behnam

I strongly support thoughtful and *meaningful* policy that addresses the use of automated systems in our markets.¹ As Chris Clearfield of System Logic, a research and consulting firm focusing on issues of risk and complexity remarked, “In every situation, a trader or a piece of technology might fail, or a shock might trigger a liquidity event. What’s important is that structures are in place to limit – not amplify – the impact on the overall system.”² Any rule that we put forward should both minimize the potential for market disruptions and other operational problems that may arise from the automation of order origination, transmission or execution, and create structures to absorb and buffer breakdowns when they occur. Unfortunately, today’s proposal regarding Electronic Trading Risk Principles does not meaningfully achieve this, and thus I respectfully dissent.

A little over ten years ago, on May 6, 2010, the Flash Crash shook our markets.³ The prices of many U.S.-based equity products, including stock index futures, experienced an extraordinarily rapid decline and recovery. After this event, the staffs of

¹ The Commission’s Office of the Chief Economist has found that over 96 percent of all on-exchange futures trading occurred on DCMs’ electronic trading platforms. Haynes, Richard & Roberts, John S., “Automated Trading in Futures Markets – Update #2” at 8 (Mar. 26, 2019), available at https://www.cftc.gov/sites/default/files/2019-04/ATS_2yr_Update_Final_2018_ada.pdf.

² Chris Clearfield, *Vision Zero for Our Markets*, The Risk Desk, Dec. 21, 2016, at 4.

³ See Findings Regarding the Market Events of May 6, 2010, Report of the Staffs of the CFTC and SEF to the Joint Advisory Committee on Emerging Regulatory Issues (Sept. 30, 2010), available at <http://www.cftc.gov/ucm/groups/public/@otherif/documents/ifdocs/staff-findings050610.pdf>.

the U.S. Securities and Exchange Commission (“SEC”) and CFTC issued a report to the Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues.⁴ The report noted that “[o]ne key lesson is that under stressed market conditions, the automated execution of a large sell order can trigger extreme price movements, especially if the automated execution algorithm does not take prices into account. Moreover, the interaction between automated execution programs and algorithmic trading strategies can quickly erode liquidity and result in disorderly markets.”⁵ In 2012, Knight Capital, a securities trading firm, suffered losses of more than \$460 million due to a trading software coding error.⁶ Other volatility events related to automated trading have followed with increasing regularity.⁷

After the Flash Crash, the CFTC initially worked with the SEC to establish controls to minimize the risk of automated trading disruptions. Knight Capital demonstrated that the Flash Crash was not a one-off event, and in 2013 the Commission published an extensive Concept Release on Risk Controls and System Safeguards for Automated Trading Environments (“Concept Release”).⁸ Following public comments on the Concept Release, the Commission published “Regulation AT,” which proposed a series of risk controls, transparency measures, and other safeguards to address risks

⁴ *Id.*

⁵ *Id.* at 6.

⁶ See SEC Press Release No. 2013-222, “SEC Charges Knight Capital With Violations of Market Access Rule” (Oct. 16, 2013), available at <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539879795>.

⁷ For a list of volatility events between 2014 and 2017, see the International Organization of Securities Commissions (“IOSCO”) March 2018 Consultant Report on Mechanisms Used by Trading Venues to Manage Extreme Volatility and Preserve Orderly Trading (“IOSCO Report”), at 3, available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD607.pdf>.

⁸ Concept Release on Risk Controls and System Safeguards for Automated Trading Environments, 78 FR 56542 (Sept. 12, 2013).

arising from automated trading on designated contract markets or “DCMs.”⁹ Reg AT proposed pre-trade risk controls at three levels in the life-cycle of an order executed on a DCM: (i) certain trading firms; (ii) futures commission merchants (“FCMs”); and (iii) DCMs. In 2016, again based on public comments, the Commission issued a supplemental notice of proposed rulemaking for Reg AT, proposing a revised framework with controls at two levels (instead of three levels initially proposed): (1) the AT Person or the FCM; and (2) the DCM.¹⁰

Since 2016, the Commission has not advanced policy designed to prevent or restrain the impact of these market disruptions resulting from automated trading. While the Commission has not acted, these events have continued to occur. In September and October 2019, the Eurodollar futures market experienced a significant increase in messaging.¹¹ According to reports, the volume of data generated by activity in Eurodollar futures increased tenfold.¹² The DCM responded by changing its rules to increase penalties for exceeding certain messaging thresholds and cutting off connections for repeat violators.¹³ The DCM acted appropriately in such a situation and strengthened the rules for its participants; however, Commission policy could well have prevented this event by requiring pre-trade risk controls, including messaging thresholds.

⁹ Regulation Automated Trading, Proposed Rule, 80 FR 78824 (Dec. 17, 2015).

¹⁰ Supplemental Regulation AT NPRM, 81 FR 85334 (Nov. 25, 2016).

¹¹ See Osipovich, Alexander, “Futures Exchange Reins in Runaway Trading Algorithms,” *Wall Street Journal* (Oct. 29, 2019), available at <https://www.wsj.com/articles/futures-exchange-reins-in-runaway-trading-algorithms-11572377375>.

¹² *Id.*

¹³ See CME Group Globex Messaging Efficiency Program, available at <https://www.cmegroup.com/globex/trade-on-cme-globex/messaging-efficiency-program.html>.

Given the importance of the issue, I would like to commend the Chairman for stepping forward with a proposal today. However, as I considered this proposal, I found myself questioning what the proposed Risk Principles do differently than the status quo. The preamble seems to go to great lengths to make it clear that the Commission is not asking DCMs to do anything. The preamble states that the “Commission believes that DCMs are addressing most, if not all, of the electronic trading risks currently presented to their trading platforms.”¹⁴ As the preamble discusses each of the three “new” Risk Principles, it goes on to describe all of the actions taken by DCMs today that meet the principles. The fact that the Commission is not asking DCMs to do anything new is clearest in the cost benefit analysis, which states that “DCMs’ current risk management practices, particularly those implemented to comply with existing regulations 38.157, 38.251(c), 38.255, and 38.607, already may comply with the requirements of proposed rules 38.251(e) through 38.251(g).”¹⁵ If the appropriate structures are in place, and we have dutifully conducted our DCM rule enforcement reviews and have found neither deficiencies nor areas for improvement, then is the exercise before us today anything more than creating a box to check? The only potentially new aspect of this proposal is that the preamble suggests different application in the future, as circumstances change. The Commission seems to want it both ways: we want to reassure DCMs that what they do now is enough, but at the same time the new risk principles potentially provide a blank check for the Commission to apply them differently in the future. Or perhaps, viewed differently, when there is a technology failure—and there will be—will the Commission

¹⁴ Proposal at I.A.

¹⁵ Proposal at IV.C.3.

stand by its principles or will it fashion an enforcement action around a black swan event so that everyone walks away bruised, but not harmed?

For market participants, this may be extremely confusing. What precisely are DCMs being asked to do, and what will they be asked to do in the future? Frankly, I am not sure. But it could be more than they bargained for.

The first Risk Principle requires DCMs to “[a]dopt and implement rules . . . to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading.” None of the key terms in this principle are defined in the regulation or the preamble. DCMs are left some clues, but they are not told precisely what a market disruption or system anomaly is. Perhaps most importantly, they are not told what it means for something to be “reasonably designed” to prevent these things. This lack of clarity continues through the other two new Risk Principles. And while the Commission provides some clues by stating that current practice “may” meet the new principles, it then goes on to say that future circumstances may require future action by DCMs in order to comply with the principles.

As a recent article by our Chairman in the Harvard Business Law Review points out, the CFTC has a long tradition of principles-based regulation.¹⁶ The concept runs through our core principles, which form the framework for much of what we do and how we regulate. It certainly is tempting to promulgate broad rules that provide the CFTC with flexibility to react to changes in the marketplace. The problem is that this flexibility comes at a number of costs – it potentially denies market participants the certainty they

¹⁶ Press Release Number 8183-20, CFTC, ICYMI: Harvard Business Law Review Publishes Chairman Tarbert’s Framework for Sound Regulation (June 15, 2020), <https://www.cftc.gov/PressRoom/PressReleases/8183-20>.

need to make business decisions, and, if the principles are too flexible, it denies market participants the notice and opportunity to comment that is required by the Administrative Procedures Act. These costs become too high where, as today, we promulgate rules that are too broad in their terms and too vague in application. There is a reason why the core principles for swap execution facilities (“SEFs, DCMs, and derivatives clearing organizations (“DCOs”) in our rule set are extensive, and why the regulations include appendices explaining Commission interpretation and acceptable practices. Without sufficient clarity, principles actually can become a vehicle for government overreach – a blank check for broad government action –and that includes enforcement action.

There is a saying in basketball that a good zone defense looks a lot like a man-to-man defense, and a good man-to-man defense looks a lot like a zone defense. I think the same can be said of principles-based regulation and rules-based regulation. Good principles-based regulation should look a lot like rules-based regulation – it should have enough clarity to provide market participants with certainty and the opportunity to provide comment regarding what regulation will look like.

It is worth noting that the Commission described the unanimously approved Reg AT proposal as principles-based.¹⁷ Multiple commenters to that proposal noted that it was too principles-based.¹⁸ I suspect that each of us on the Commission believes that the CFTC has a tradition of principles-based regulation, and that that tradition should continue. However, I think there is disagreement as to precisely what that means.¹⁹

¹⁷ Reg AT at 78838.

¹⁸ See Comments of Americans For Financial Reform and Better Markets, Inc., available at <https://comments.cftc.gov/PublicComments/CommentList.aspx?id=1762>.

¹⁹ As I have stated before, “A principles-based approach provides greater flexibility, but more importantly focuses on thoughtful consideration, evaluation, and adoption of policies, procedures, and practices as

Finally, I want to make a few comments on the vote regarding the withdrawal of Reg AT. On one hand, the Risk Principles proposal today expressly is not about automated or algorithmic trading. This applies to electronic trading generally. Yet there seems to be a perception that this is a replacement for Reg AT, and that is already reflected in media accounts of our action today.²⁰ And if there is any question, the Commission is separately voting on withdrawal of Reg AT (and mentions Reg AT repeatedly in the document) at the same time it is issuing this NPRM.

A separate vote specifically to withdraw a prior Commission proposal is highly unusual – particularly in a situation where, as here, the original proposal was unanimously issued. I believe that this action establishes a dangerous precedent for a Commission that has historically prided itself on its collegiality and efforts to work in a bipartisan fashion. I have followed in a tradition of some of my predecessors on the Commission, at times voting for proposals that I would not have supported as final rules, for the purpose of advancing the conversation.²¹ I worry that the withdrawal of Reg AT could lead to future withdrawals of Commission proposals, and a loss of this historical collegiality. We should be standing on the shoulders of those who came before us, not tearing down what came before us.

opposed to checking the box on a predetermined, one-size-fits-all outcome. However, the best principles-based rules in the world will not succeed absent: (1) clear guidance from regulators; (2) adequate means to measure and ensure compliance; and (3) willingness to enforce compliance and punish those who fail to ensure compliance with the rules.” See Rostin Behnam, Commissioner, CFTC, Remarks of Commissioner Rostin Behnam before the FIA/SIFMA Asset Management Group, Asset Management Derivatives Forum 2018, Dana Point, California (Feb. 8, 2018), <https://www.cftc.gov/PressRoom/SpeechesTestimony/opabehnam2>.

²⁰See Bain, Ben, “Flash Boys New Rules Won’t Make Them Hand Over Trading Secrets,” Bloomberg (Jun. 18, 2020), <https://www.bloomberg.com/news/articles/2020-06-18/flash-boys-new-rules-won-t-make-them-hand-over-trading-secrets>.

²¹ See Concurring Statement of Commissioner Rostin Behnam Regarding Swap Execution Facilities and Trade Execution Requirement, (Nov. 5, 2018), <https://www.cftc.gov/PressRoom/SpeechesTestimony/behnamstatement110518a>.

Market participants expressed valid concerns to the original Reg AT, as they do with many of our proposals. But, market displeasure with just one or even a few of those original policy concepts is not a reason to throw away the rest of the proposal. Let's revisit, review, and refresh sound policy to better reflect modern market structure and a healthy relationship between market participant and market regulator. I firmly believe we collectively strive for the same goal: safe, transparent, orderly, and fair markets. Unfortunately, today's proposal does not advance the conversation, and as such I cannot support it.

The preamble to today's NPRM expressly says "The Risk Principles proposed here are intended to accomplish a similar goal..." to the original Reg AT.²² The Reg AT proposal rule text took up more than 6 pages in the *Federal Register*, and made revisions and additions to Parts 1, 39, 40, and 170, providing a comprehensive – and principles-based – framework for addressing a very real issue that all market participants should be concerned about. Today's proposed principles are all of three sentences long. This is not a miracle of brevity. It just shows that the proposal today does not really do anything – while paradoxically writing the Commission a blank check to change its mind about what the principles mean in the future and who will stand by them when the next black swan lands.

²² Proposal at I.B.

Appendix 5 – Statement of Commissioner Dan M. Berkovitz

I support issuing for public comment the proposed rule on Electronic Trading Risk Principles (“Proposed Rule”). The Proposed Rule is a limited step to address potential market disruptions arising from system errors or malfunctions in electronic trading. Although it leaves important issues unaddressed, the Proposed Rule recognizes the need to update the Commission’s regulations to keep pace with the speed, interconnection, and automation of modern markets. I support the Commission’s long-overdue re-engagement in this area.

While I support issuing the Proposed Rule for public comment, I do not support withdrawing the proposed rule known as Regulation Automated Trading (“Reg AT”).¹ The notice of withdrawal reflects a belief that there is nothing of value in Reg AT. That is simply not true. Reg AT was a comprehensive approach for addressing automated trading in Commission regulated markets. Certain elements of Reg AT attracted intense opposition and may have been a bridge too far. However, I applaud that proposal’s efforts to identify the sources of risk and implement meaningful risk controls. I believe the comments received on Reg AT are worth evaluating going forward.

The Proposed Rule would codify in part 38 of the Commission’s regulations three “Risk Principles” applicable to electronic trading on designated contract markets (“DCMs”). Risk Principle 1, for example, would require DCMs to implement rules applicable to market participants to prevent, detect, and mitigate market disruptions and system anomalies. Risk Principle 2 would also require DCMs to implement their own pre-trade risk controls. While worthwhile as statements of principle, these proposed

¹ Regulation Automated Trading, 80 Fed. Reg. 78824 (Dec. 17, 2015); 81 Fed. Reg. 85334 (Nov. 25, 2016) (supplemental notice of proposed rulemaking for Regulation Automated Trading).

requirements are drafted in terms that may ultimately prove too high-level to achieve the goal of effectively preventing, detecting, and mitigating market disruptions and system anomalies. This concern is discussed in greater detail below, and I look forward to public comment on the issue.

The Proposed Rule includes Acceptable Practices in Appendix B to part 38, which provide that a DCM can comply with the Risk Principles through rules and risk controls that are “reasonably designed” to prevent, detect, and mitigate market disruptions and system anomalies. The Proposed Rule specifies that reasonableness is an objective measure, and that a DCM rule or risk control that is not “reasonably designed” would not satisfy the Acceptable Practices or the Risk Principles. As the Proposed Rule indicates, the Commission will monitor DCMs’ compliance with the Risk Principles. In this regard, the Commission has multiple oversight activities at its disposal, including market surveillance activities, reviews of new rule certifications and approval requests, and rule enforcement reviews.

The Proposed Rule is also clear on the fundamental division of authority under the Commodity Exchange Act (“CEA”) between DCMs and the Commission. Amendments to the CEA made through the Commodity Futures Modernization Act (“CFMA”) in the year 2000 introduced the core principle regime and provided DCMs with flexibility in establishing how they comply with a core principle.² Ten years later, however, learning from the 2008 financial crisis and the excesses of deregulation, the Dodd-Frank Act overhauled the CEA, including in its treatment of the core principle

² Commodity Futures Modernization Act of 2000, Pub. L. No. 106-554, 114 Stat. 2763A-365 (2000).

regime.³ Specifically, section 735 of the Dodd-Frank Act made clear that a DCM's discretion with respect to core principle compliance was circumscribed by any rule or regulation that the Commission might adopt pursuant to a core principle.⁴ I am able to support today's Proposed Rule for publication in the *Federal Register* because of improvements that clarify the respective authorities between a DCM and the Commission. Under the CEA, the Commission is the ultimate arbiter of whether a DCM's rules and risk controls are reasonably designed, under an objective standard. I thank the Chairman for his efforts at building consensus in this regard.

The Proposed Rule overlaps with existing requirements in part 38 of the Commission regulations, including regulation 38.255, which requires DCMs to “establish and maintain risk control mechanisms to prevent and reduce the potential risk of price distortions and market disruptions”⁵ While the Proposed Rule and Risk Principle 2 are more explicit with respect to electronic trading, they may add little to existing requirements and practices regarding the risk controls that DCMs build into their own systems. Indeed, the Proposed Rule provides numerous examples of specific risk controls at major DCMs that likely already meet this requirement, and of disciplinary actions taken by DCMs against market participants related to electronic trading. Although the Commission articulates a need for updating its risk control requirements, the fact that the Risk Principles as proposed are likely to have no practical effect undermines the usefulness of this exercise.

³ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

⁴ Commodity Exchange Act section 5(d)(1)(B), 7 U.S.C. 7(d)(1)(B) (2010).

⁵ 17 CFR 38.255 (2012).

The Proposed Rule possibly may be of greater benefit in with respect to Risk Principle 1 and its requirement that DCMs implement risk control rules applicable to their market participants. Market participants, who originate orders via systems ranging from comparatively simple automated order routers to nearly autonomous algorithmic trading systems, are crucial focal points for any adequate system of risk controls. An effective system of risk controls must therefore include controls at multiple stages in the life cycle of an automated order submitted to an electronic trade matching engine. Although Risk Principle 1 could benefit from greater rigor, it is nonetheless a critical recognition that market participants have an important role in any effective risk control framework.

I look forward to public comments on additional measures that the Commission should consider for effective risk controls across the ecosystem of electronic and algorithmic trading. My support for any final rule that may arise from this proposal is conditioned upon a thorough articulation of the technology-driven risks present in today's markets, and a concomitant regulatory response that will meaningfully address such risks. In a market environment where the vast majority of trading is now electronic and automated, inaction is a luxury that we can ill-afford.

Although the Proposed Rule may be characterized as a “principles-based” approach, in fact the Risk Principles are not a new approach to the regulation of risks from electronic trading. The current regulation establishing requirements on DCMs to impose risk controls—Regulation 38.255—is principles-based. Regulation 38.255 states: “The designated contract market must establish and maintain risk control mechanisms to prevent and reduce the potential risk of price distortions and market disruptions,

including, but not limited to, market restrictions that pause or halt trading in market conditions prescribed by the designated contract market.” One might ask, therefore, why do we need another principles-based regulation when we already have a principles-based regulation? The preamble to the Proposed Rule notes the “overlap” between Regulation 38.255 and the proposed Risk Principles, and states “it is beneficial to provide further clarity to DCMs about their obligations to address certain situations associated with electronic trading.” In other words, the principles-based regulations previously adopted by the Commission *are not prescriptive enough* to address the risks currently posed by electronic trading. I fully agree. Although I am voting today to put out this proposal for public comment, I am not yet convinced—and I look forward to public comment on whether—the principles-based regulations proposed today are in fact sufficiently detailed or comprehensive to effectively address those risks.

I thank the staff of the Division of Market Oversight for their work on the Proposed Rule and for their patience as the Commission worked through multiple iterations of this proposal. I also thank the Chairman for his engagement and effort to build consensus. I believe that the Proposed Rule is a much better regulatory outcome because of the extensive dialogue and give-and-take that led to the rule before us today.