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## **17 CFR Chapter I Concept Release on Risk Controls and System Safeguards for Automated Trading Environments**

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Commodity Futures Trading Commission

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### **INTRODUCTION**

I appreciate the opportunity to comment on the Commodity Futures Trading Commission’s “Concept Release on Risk Controls and System Safeguards for Automated Trading Environments; Proposed Rule.” The Mercatus Center at George Mason University is dedicated to bridging the gap between academic ideas and real-world problems and advancing knowledge about the effects of regulation on society. This comment does not represent the views of any particular affected party or special interest group, but is designed to assist the Commodity Futures Trading Commission (CFTC) as it explores whether existing industry practices are adequate to ensure market integrity or if additional regulatory measures are necessary.

The CFTC describes the Concept Release as a “platform for cataloguing existing industry practices, determining their efficacy and implementation to date, and evaluating the need for additional measures, if any.” The intent of the document is “to serve as a high-level enunciation of potential measures intended to reduce the likelihood of market disrupting events and mitigate their impact when they occur.”<sup>1</sup> While the CFTC recognizes the existence of risk controls, the Concept Release is designed to determine if enforced standardization via regulation is in the best interest of the market. The regulatory measures proposed by the CFTC within the document fail to meet this standard.

The CFTC proposes four broad categories of regulation: (1) pretrade controls, (2) post-trade reports and measures, (3) system safeguards, and (4) other risk controls. The proposal recognizes that many of these controls are already in place, in one form or another, in most trading firms and exchanges. The alternative proposed by

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1. Commodity Futures Trading Commission, “Concept release on risk controls and system safeguards for automated trading environments;” proposed rule. 78 Fed. Reg 177 (September 12, 2013), 56,541–56,574.

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the CFTC is to allow traders and exchanges to continue to operate as they have if it is determined that measures already in place are sufficient to ensure the integrity of markets in automated trading environments.

## THE EVOLVING MARKET AND NEED FOR REFORM

The transition from trading venues centered on human-initiated trading activities to a highly automated and electronically networked environment has resulted in a market that is much faster and more efficient. Documented benefits of this new environment have included increased market liquidity and more efficient price discovery, lower transaction costs, narrower spreads, wider participation in markets, reduced impacts of volatility, increased availability of direct market access, and a means to obtain better order execution for clients.

Recent market events, including the “Flash Crash” of May 2010, algorithmic failures at Knight Capital, and quote dissemination system connectivity issues at the Nasdaq stock market, have caused automated systems to come under increased scrutiny and calls for more aggressive formalized regulation.<sup>2</sup> Regulation has already been approved by the CFTC that broadly prohibits manipulative and deceptive devices and directly or indirectly manipulating or attempting to manipulate prices.<sup>3</sup> Additionally, the Dodd-Frank Wall Street Reform and Consumer Protection Act makes it unlawful to engage in disruptive trading practices.<sup>4</sup> Recent fines imposed by the CFTC and others against Panther Energy Trading LLC and Michael Corsica for deliberately manipulating commodities markets in late July 2013 are examples of the enforceability of these existing regulations.<sup>5</sup> It is safe to say that when an individual or firm is intentionally engaging in manipulative practices, a market failure exists that must be managed from a regulatory perspective.

The regulations proposed in the Concept Release are generally not directly associated with a broad market failure that requires additional formal regulation. There are no consistent and widespread issues associated with the ability of all available information to be efficiently and fully reflected in the price of securities or the market’s ability to efficiently transfer security ownership. What do exist are periodic technology problems associated with the evolving nature of financial markets to automated systems. These are not problems inherent in the technology independently, but often associated with the human interaction with the technology, particularly system programming and oversight. In that respect, the human-centered nature of markets has not changed.

## DRAWBACKS OF THE CFTC’S PROPOSED REGULATION

The goals of the proposed regulations represent market integrity goals shared by traders, exchanges, and regulators. All parties agree that financial markets should be secure, reliable, and orderly to enable effective price discovery and limit market manipulation and abuses. No legitimate market participant ultimately has anything to gain in an unstable or chaotic market. These compatible self-interest goals have resulted in self-monitoring, self-regulation, and internal controls. Some examples include circuit breakers, limit-up/limit-down controls, controlled and monitored sponsored-market access programs, improved algorithms,

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2. The CFTC Concept Release describes these events as precipitating their proposals. The media has also reported these incidents as leading to calls for additional regulation. See Nick Paraskeva, “Knight Capital Crisis Brings New Push for Rules on Trading, Technology, Structure,” *Reuters*, August 6, 2012, <http://blogs.reuters.com/financial-regulatory-forum/2012/08/06/knight-capital-crisis-brings-new-push-for-rules-on-trading-technology-structure/>; Roberta Rampton and Jonathan Spicer, “‘Flash Crash’ Panel Calls for US Market Overhaul,” *Reuters*, February 18, 2011, [http://www.huffingtonpost.com/2011/02/18/flash-crash-panel-calls-f\\_n\\_825274.html](http://www.huffingtonpost.com/2011/02/18/flash-crash-panel-calls-f_n_825274.html); Gail MarksJarvis, “Nasdaq Crash Underscores Frailties of Overwhelmed System,” *Chicago Tribune*, August 23, 2013, [http://articles.chicagotribune.com/2013-08-23/business/ct-biz-0823-gail-nasdaq-20130823\\_1\\_nasdaq-stocks-glitch](http://articles.chicagotribune.com/2013-08-23/business/ct-biz-0823-gail-nasdaq-20130823_1_nasdaq-stocks-glitch).

3. CFTC, “Prohibition on the Employment, or Attempted Employment, of Manipulative and Deceptive Devices and Prohibition on Price Manipulation,” 17 CFR 180 (July 2011).

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

5. CFTC, “CFTC Orders Panther Energy Trading LLC and Its Principal Michael J. Coscia to Pay \$2.8 Million and Bans Them from Trading for One Year, for Spoofing in Numerous Commodity Futures Contracts,” news release, July 22, 2013, <http://www.cftc.gov/PressRoom/PressReleases/pr6649-13>.

and algorithmic testing, including the creation of market simulation environments. Additionally, pre and post-trade controls that detect erroneous orders have been implemented in some cases, and regulators have improved market-monitoring technology.

Many of these improvements and safeguards have been accomplished through cooperation between traders, markets, and regulators with shared goals. Attempts to formalize, through regulation, market integrity practices that traders and exchanges are already engaging in voluntarily may have a detrimental impact on existing cooperation between these stakeholders. Implementing formal and highly specific regulation implies the desire to impose sanctions when there is a technological failure or other problem with trading systems. This environment may discourage expeditious self-reporting of events to the public and regulators. As the Knight Capital algorithmic errors demonstrated, traders and exchanges already have significant market incentives to maintain practices that promote secure, reliable, and orderly financial markets and market systems that enable effective price discovery.

The Chicago Mercantile Exchange's (CME) self-reporting of a system loophole that allowed traders to detect when their own orders for certain commodities were executed a fraction of a second before the rest of the market is a good example of the power of self-reporting. The CME's quick public disclosure of the problem automatically removed any informational advantage the small number of firms who were exploiting the loophole may have had while the CME worked to fix the problem. If the CME were at risk of having significant sanctions imposed as a result of the existence of the loophole, they may have been less inclined to publicly self-report.

The utilization of cooperative norms as opposed to formal and specific regulation in the field of technology is not without precedent. Internet service providers (ISPs) have developed cooperative network security norms to deal with malicious computer code (malware). Like financial markets, stakeholders have shared goals; in the case of ISPs, the shared goal is to maintain the integrity of the Internet and minimize the risk of malicious attack. Through informal "handshake" agreements, ISPs have the ability to act swiftly to sever relationships with those customers hosting cybercriminals and publicly disclose the existence of malware to minimize its spread. ISPs would have less incentive to publicly report if they faced liability for damages from a malware attack. Also, the additional costs associated with specific regulatory compliance would be passed on to customers, making the Internet less accessible. The very existence of the Internet as we know it would also be at risk, as there would be disincentives to engage in extensive peering that is necessary for the free exchange of information across networks.<sup>6</sup>

A second potential problem is that if risk control and system testing methods are standardized by regulatory intervention, they essentially become fixed and modifications will generally require either new regulations or exemptions. This would discourage private investment in system and risk-mitigation innovations and significant implementation delays for technology that may provide continuous improvement in trading-system integrity. After all, regulators and market participants cannot foresee every possible contingency and must remain nimble.

Placing significant and highly specific regulatory burdens on trading firms including system design and post-trade reporting, as well as attempts to curb the speed of trading through throttles, reductions in order-to-trade ratios (OTR), and maximum order sizes, may have two additional negative market impacts:

First, it may be difficult to maintain the same level of efficient price discovery, liquidity, narrow spreads, and low trading costs associated with high-speed and algorithmic trading. For example, regulatory efforts

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6. Eli Dourado, "Internet Security without Law: How Service Providers Create Order Online (Working Paper No. 12-19, Mercatus Center at George Mason University, Arlington, VA, June 2012), [http://mercatus.org/sites/default/files/ISP\\_Dourado\\_WP1219.pdf](http://mercatus.org/sites/default/files/ISP_Dourado_WP1219.pdf).

in France and Italy to reduce OTR have significantly decreased liquidity.<sup>7</sup> The additional costs associated with regulatory compliance will also inevitably be passed on to customers, raising trading costs.

Second, the cost and overall burden of compliance with additional regulation may cause traders to abandon US markets for emerging high-frequency and algorithmic trading markets like Russia, Brazil, and Mexico. These markets are encouraging the growth of high-frequency and algorithmic trading to improve liquidity in their markets. This could result not only in the loss of investment capital, but also in the loss of the ability of US regulators to monitor algorithmic trading activity for manipulative practices. In a global financial market, abuses in markets outside the United States could impact markets at home. Offshoring of algorithmic trading does not meet the CFTC's goal of helping to reduce the likelihood of market-disrupting events. Abandoning markets due to the burden of regulation is already happening in Europe.<sup>8</sup> This risk supports ongoing monitoring efforts by regulators rather than additional formal and highly specific regulation.

The strong market incentives associated with the interdependent nature of market participants, the mutual advantage of shared market integrity goals of stakeholders, and the potential for rising transaction costs and deadweight loss from compliance with regulatory intervention are conditions that create an environment in which cooperation is the preferred, most efficient, and socially optimal solution.<sup>9</sup>

## CONCLUSION

Enabling traders and exchanges to continue to work with regulators in a cooperative environment that recognizes the significant market incentives shared by all stakeholders to ensure trading system and market integrity is the best approach as we transition to technology-based markets. Significant broad regulation already exists that prohibits intentional market abuse and manipulative or disruptive trading practices. Stakeholders working together within this broad regulatory framework are best prepared to do the right thing through self-reporting, sharing best practices, implementing technology, testing innovations, and maintaining a dynamic US market that is highly liquid, efficient, and accessible. I do not recommend the introduction of the additional aggressive and highly specific regulation outlined in the Concept Release into the market, but a role for the CFTC as facilitator and disseminator of market integrity practices as they continue monitoring the market for manipulative practices.

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7. Both France and Italy implemented transaction taxes on cancelled orders to reduce OTR. France's share of European equity turnover has been reduced from 23 percent in 2011 to an estimated 12.85 percent in 2013. In Italy equity turnover has dropped from €101 billion in 2012 to €50 billion for the same time period this year, according to information from the TABB Group.

8. One high-profile example is Cologne Independent Traders announcing it will close operations in Germany due to the "significant" burden of European regulation. See Tim Cave, "German Firm Quits over Tough High-Frequency Trading Rules," *Wall Street Journal Moneybeat* (blog), June 5, 2013, <http://blogs.wsj.com/moneybeat/2013/06/05/german-firm-quits-over-tough-high-frequency-trading-rules/>.

9. See Robert C. Ellickson, *Order without Law: How Neighbors Settle Disputes* (Cambridge, MA: Harvard University Press, 2011).