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## CFTC Concept Release on Automated Systems and Risk Controls

2013-09-16

On September 12, 2013, the Technology Advisory Committee (“TAC”) of the Commodity Futures Trading Commission (“CFTC” or “Commission”) held a public meeting to discuss the CFTC’s recent Concept Release on Risk Controls and System Safeguards for Automated Trading (“Concept Release” or “Release”).<sup>1</sup> Below are brief summaries of both the Concept Release and discussions held during the TAC meeting. We will provide a more comprehensive analysis of the Concept Release in the near future.

### CONCEPT RELEASE

The CFTC published the Concept Release against the backdrop of significant changes in the markets for futures and derivatives, including several highly publicized market disruptions. In the Release, the Commission noted the transition in recent years from human-centered trading venues, such as commodity trading pits, to highly automated and interconnected trading environments. Specifically, modern markets are now operated by a combination of automated trading systems (“ATs”)<sup>2</sup> and electronic trading platforms that can execute repetitive tasks at speeds greater than any human equivalent. In light of new market structures, the Commission stated that traditional risk controls and safeguards, which largely rely on human judgment and intervention, must be reevaluated. Thus, the Release is intended 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>3</sup>

The Concept Release highlights the growing presence of ATs and high frequency trading (“HFT”),<sup>4</sup> discusses recent disruptive events associated with automated trading, outlines recent Commission rule-making initiatives aimed at mitigating risk caused by ATs, and solicits comment on 124 questions to further discussion on how to best mitigate AT-related and, in particular, HFT-related risks.

The Commission is soliciting comments with regard to four broad risk-mitigation categories: (1) pre-trade controls,<sup>5</sup> (2) post-trade reports and other post-trade measures,<sup>6</sup> (3) system safeguards,<sup>7</sup>

and (4) additional protections.<sup>8</sup> The Commission is seeking comment on the general utility of specific controls, as well as whether controls should be implemented by individual firms, intermediaries,<sup>9</sup> exchanges,<sup>10</sup> or some combination of the three. The Commission also posed several questions regarding coordination with the Securities and Exchange Commission on these issues.

## **TAC PUBLIC MEETING**

During the public meeting, the Commissioners, members of the Staff, the TAC, and industry professionals, including high frequency traders and futures exchange operators, discussed the Concept Release. Many commenters praised the Concept Release for its breadth and thoroughness of approach, and commended the Commission's approach and regulatory response thus far with respect to market structure and mitigating HFT risks. The dialogue generally centered on four key issues: (1) the nature of the forthcoming regulatory framework; (2) the Release's emphasis on speed and HFT; (3) risk control considerations; and (4) the need to manage expectations regarding the mitigation of risks.<sup>11</sup>

### **Nature of the Forthcoming Regulatory Framework**

Commenters generally urged the Commission to avoid detailed, specific and static rulemaking, in favor of a more principles-based framework. Noting that trading practices can change rapidly, commenters urged the Commission to address the issue holistically, with an eye toward the economic activity involved. Several commenters warned of the dangers of relying on labels and definitions.

Other commenters identified broad considerations without stating a preference for a rules-based versus principles-based framework. At least one commenter, anticipating the potential complexity of the forthcoming framework, expressed concern that the Commission's risk mitigating agenda may serve as a barrier to entry.

### **Release's Emphasis on Speed and HFT**

Many commenters noted the Concept Release's recurring discussion of speed and attempted distinction of HFT systems from other ATSS, and urged the Commission to avoid regulating based on the misconception that speed is bad or dangerous. A representative from a futures exchange explained that the exchange's concerns revolve around how traders can impact the market, without regard for their speed or HFT. The commenter asked the Commission to refocus the conversation to address adequate risk management rather than speed or HFT. Commenters also disagreed with the need for a fixed definition of HFT and instead suggested that the Commission focus more on the careful control, recognition and surveillance of accidental incidents and manipulative practices. One high frequency trader encouraged the Commission to catalogue the specific conduct associated with high frequency trading that raises concerns and use that framework as a focal point for regulatory action. A number of commenters noted that high frequency trading, when

accompanied by the appropriate automated computerized risk checks and surveillance, is not inherently risky or dangerous simply by virtue of being fast. Commenters also emphasized the need to remember the benefits of HFT.

## **Risk Control Considerations**

Participants at the public meeting highlighted various risk control considerations, including some that were not discussed in the Release. With respect to software development and testing, one commenter emphasized the need to focus on interoperability risk. Another commenter urged the Commission to consider carefully, surveillance practices that rely on human activity in addition to the automated risk controls that are a core focus of the Release.<sup>12</sup>

In general, several commenters focused on the nuances of different types of controls and some underscored the importance of post-trade controls. Specifically with respect to kill switches, one commenter highlighted the uncertainty of the potential impact where the control “kills” a market participant’s risk mitigating activity, as opposed to “killing” the risk-creating activity.

## **Managing Expectations regarding Risk Mitigation**

In discussing the pressing need for automated trading risk controls and systems safeguards, commenters emphasized that technological issues will inevitably continue to arise and urged the Commission to attempt to manage expectations in this regard. One commenter pointed out that no set of risk controls or system safeguards could prevent all future errors. The commenter encouraged the Commission to promote the understanding that errors will continue to occur and that market participants should expect them. Another commenter stressed the importance of conducting very careful cost-benefit analyses when proposing and adopting rules.

## **CONCLUSION**

Financial market regulators have devoted increasing attention to risks posed by automated trading in the markets. The Concept Release and the TAC public meeting are the most recent efforts in this regard and, in considering appropriate regulatory responses to such risks, the CFTC has cast a wide net in soliciting comment. Market participants interested in these issues should carefully review the Release with a view to helping shape the discussion and subsequent proposals in this area.

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<sup>1</sup> 78 Fed. Reg. 56,542 (Sept. 12, 2013) [hereinafter “Concept Release”] available at <http://www.cftc.gov/ucm/groups/public/@Irfederalregister/documents/file/2013-22185a.pdf>.

<sup>2</sup> The Commission described ATs as systems related to the generation of orders that operate at the beginning of the order and trade lifecycle and reflect a set of rules or instructions (an algorithm) as well as related computer systems used to automate the execution of a trading strategy. The Commission explained that ATs may be used to minimize the price impact of large orders, achieve

a benchmarked price, or otherwise execute instructions traditionally provided by a human. *See id.* at 56, 544.

<sup>3</sup> *Id.* at 56,551.

<sup>4</sup> In the Concept Release, the Commission noted that the TAC working group has identified the following as attributes of HFT:

(a) algorithms for decision making, order initiation, generation, routing, or execution, for each individual transaction without human direction; (b) low-latency technology that is designed to minimize response times, including proximity and co-location services; (c) high speed connections to markets for order entry; and (d) recurring high message rates (orders, quotes or cancellations) determined using one or more objective forms of measurement, including (i) cancel-to-fill ratios; (ii) participant-to-market message ratios; or (iii) participant-to-market trade volume ratios.

*Id.* at 56,545.

<sup>5</sup> Potential pre-trade controls identified in the Release include: (1) message throttles, (2) execution throttles, (3) volatility awareness alerts, (4) self-trade controls, (5) price collars, (6) maximum order size, (7) trading pauses and (8) credit risk limits. *See id.* at 56,551- 555.

<sup>6</sup> Potential post-trade controls identified in the Release include: (1) order reports, (2) trade reports, (3) position reports, (4) uniform adjust or bust error trade policies, and (5) standardized reporting windows for error trades. *See id.* at 56,555- 556.

<sup>7</sup> Potential system safeguards identified in the Release include: (1) order cancellation capabilities, including auto-cancel on disconnect, selective working order cancellation, kill switches, repeated automated execution throttles, and system heartbeats; (2) policies and procedures for the design, testing and supervision of ATSS; (3) self-certifications and notifications; (4) ATS or algorithm identification; and (5) data reasonability checks. *See id.* at 56,556-560.

<sup>8</sup> Potential additional protections identified in the Release include: (1) registrations of all firms operating ATSS, (2) market quality data, (3) market quality incentives, (4) policies and procedures for identifying “related” contracts, and (5) standardized and simplified order types. *See id.* at 56,560-563.

<sup>9</sup> These may include: (1) swap dealers, (2) major swap participants, (3) futures commission merchants, (4) floor traders, (5) commodity pool operators and (6) derivatives clearing organizations.

<sup>10</sup> These include both designated contract markets and swap execution facilities (“SEFs”).

<sup>11</sup> Commenters also addressed federalization and SEFs’ potential impact on the market.

<sup>12</sup> The Commission is interested in a broad range of responses, including those incorporating human involvement.

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