



Alternative Investment Management Association

Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington DC
DC 20581
USA

11 December 2013

Dear Ms. Jurgens,

AIMA Response to CFTC Concept Release on Risk Controls and System Safeguards for Automated Trading Environments

The Alternative Investment Management Association (AIMA)¹ appreciates the opportunity to respond to the Commodity Futures Trading Commission (CFTC) 'Concept Release on Risk Controls and Systems Safeguards for Automated Trading Environments' (the **Concept Release**). Many of AIMA's hedge fund manager members employ a variety of automated trading systems (ATSs) of various speeds in furtherance of a broad range of strategies and investment goals, including meeting regulatory requirements for best execution. AIMA's membership includes participants which undertake high frequency trading (HFT) as well as non-HFT low-latency automated trading.

We recognise the risks posed by the propagation of ATS within derivatives markets and support the application of proportionate and well tailored pre- and post-trade controls, as well as robust testing and dissuasive *ex post* enforcement for grossly negligent behaviour. In this regard, we stress that buy-side market participants have a mutual interest alongside the CFTC in ensuring that the ATSs they operate are as safe as possible - for example, through robust testing and incremental roll-out. A rogue ATS or other such operational error could have significant financial consequences for an investment firm and its employees, through direct trading losses, breaches of its relevant fiduciary duties to investors and potential long-term reputational damage. Overall, AIMA considers that the Concept Release represents a strong understanding of how the market is structured. We, nonetheless, have certain concerns and suggestions that we explain below.

AIMA highlights that different market participants, as well as derivatives markets themselves, operate a broad variety of ATSs with idiosyncrasies that require a degree of regulatory flexibility to ensure that: (i) relevant standards are best calibrated to the risks posed by particular ATSs; (ii) compliance resources are used in an optimal manner; and (iii) unnecessary restrictions on *bona fide* trading activity are minimised. It is our view that any regulatory standards should ensure that efficient, market-based incentives for ongoing technological development remain and that the mutual benefits of such developments are maximised in a safe and sustainable manner. Prescriptive rules in an area as diverse and dynamic as ATSs would likely prove inefficient and become outdated very quickly. Such rules would also be vulnerable to circumvention. We, therefore, urge the CFTC to take a *principles* based approach to any final rules which takes account of the specificities of different ATSs and the various structure and roles of market entities. In particular, we believe that the relative robustness of any CFTC principles should be calibrated according to the entity's proximity from the market. For example, designated contract markets (DCMs), swap execution facilities (SEFs), futures commission merchants (FCMs) and market participants with direct market access (DMA) should be subject to greater requirements to prevent the disruption to the market than indirect participant entities which route orders through intermediaries. In this regard, AIMA considers that the centralisation of

¹ AIMA is the trade body for the hedge fund industry globally; our membership represents all constituencies within the sector - including hedge fund managers, fund of hedge fund managers, prime brokers, fund administrators, accountants and lawyers, membership comprises over 1,300 corporate bodies in over 50 countries.

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certain key risk controls and safeguards at the level of the trading platform and relevant swap dealers (SDs), major swap participants (MSPs) would be beneficial.

We also stress the importance of considering the regulation of risk controls and systems safeguards for ATs from a global perspective. Derivatives markets are global in nature and, therefore, require a globally consistent approach to minimise unintended consequences of the interaction between different risk control requirements, thus maximise the effectiveness of each regime. Such would also ensure the cost efficiency of and compliance with the regime as participants would need only to comply with a single set of principles, minimising compliance complexity and chances for inadvertent breaches. AIMA is especially keen to ensure that any rules covering HFT and algorithmic trading does not become a source of extreme complexity and compliance uncertainty in the same way as global OTC derivatives reforms. We, therefore, urge the CFTC to reach-out to other G20 regulators to adopt an internationally consistent approach.² Furthermore, we also urge the CFTC to consider that it is often not the US licensed market entity that develops, owns and supervises a particular ATs, but another entity within the corporate group. This entity may well be established outside of the US and, therefore, be subject to another jurisdiction's rules. It is vitally important that CFTC Principles are reconcilable with these non-US rules to ensure that such entities are not forced to breach either regime in their development and supervisory role. We also stress the importance of enabling US entities to be able to rely on outsourced services of non-US entities without being forced to duplicate any risk control or system safeguard functions. This would be particularly relevant for any CFTC principles on testing.

We provide specific responses to the questions posed by the Concept Release within the Annex below.

Our summary points are as follows:

- A clear and accurate definition of HFT is desirable. However, the CFTC Technology Advisory Committee (TAC) working group definition contained within the Concept Release would benefit from certain amendments to ensure it does not inadvertently capture low-latency, but non-HFT ATs. Any regulatory focus on HFT should concentrate on the negative externalities of HFT and avoid restricting its benefits to the broader market. AIMA does not support separate registration of HFT participants, however.
- Buy-side participants each have a mutual interest in developing robust risk measures and safeguards to avoid ATs malfunctions. Counterproductive results could ensue from the implementation of harmonised prescriptive risk measures across all participants. Firms would lose the ability to calibrate their risk management controls according to their particular businesses, thereby restricting the efficacy of this private mechanism to ensure the most efficient risk controls.
- AIMA has certain concerns relating to the pre-trade risk controls described within the Concept Release. We believe strongly that pre-trade credit risk checks are not suitable for ATs and would result in undue systems complexity, delay and the potential for competitive distortions through the inconsistent interpretation of data by different participants. We consider that price collars, if recommended, should be maintained in the form of a temporary trading pause in both directions, rather than a limit only on orders placed in a single direction beyond the market. Additionally, we advise that trade cancellations for bids outside of a narrow price window are not beneficial for market liquidity or efficient price formation. Trade cancellations in the context of self-trade measures could also be undesirable. We, therefore, suggest that any CFTC principles recommend that self-trade systems be limited to alarms managed manually by exchanges, with the optionality enabling participants to accept cancellations should their particular business structure and strategies be suitable.

² So as to avoid the unilateral imposition of a plethora of potentially conflicting rules by national regulators. Specific rules have already been adopted by:

- Germany, see: http://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Meldung/2013/meldung_130322_hft-gesetz_en.html?nn=2821494
- Hong Kong, see: <http://www.sfc.hk/edistributionWeb/gateway/EN/consultation/conclusion?refNo=12CP3>
- Australia, see: [http://www.asic.gov.au/asic/pdf/lib.nsf/LookupByFileName/rg241-published-21-August-2013.pdf/\\$file/rg241-published-21-August-2013.pdf](http://www.asic.gov.au/asic/pdf/lib.nsf/LookupByFileName/rg241-published-21-August-2013.pdf/$file/rg241-published-21-August-2013.pdf) and
- ESMA, see: http://www.esma.europa.eu/system/files/esma_2012_122_en.pdf

And are currently being developed as part of the EU proposal for a Directive on markets in financial instruments repealing Directive 2004/39/EC of the European Parliament and of the Council



- Minimum order resting times are counterproductive and would result in unintended competitive distortions which could, in fact, benefit HFT ATSs, to the detriment of all non-HFT buy-side participants.
- AIMA agrees that robust and effective testing of ATSs is vitally important. We qualify, however, that such testing is an art rather than an infallible science. No software can fully replicate the market dynamic. Similarly, the diverse nature of ATS and the markets in which they operate mean that testing must be able to take ATS and market specificities into account. A prescriptive testing requirement would not maximise systems safety. We recommend, therefore, that the CFTC adopt principles upon which testing can be based in an efficient and tailored manner.
- Exchange kill switches for a particular trading firm linked to a 'heartbeat', as described within the Concept Release, would be a useful safeguard. Any use of an exchange kill switches in relation to particular instruments must, however, be sufficiently harmonised across other venues in order to minimise the chances of arbitrage.
- The *ex post* identification and sanctioning of negligence should be a central tool to encourage high standards of risk controls and systems protection in accordance with the CFTC principles. Such *ex post* analysis could be undertaken using data obtained through existing information and data systems of US regulated markets.
- At all times, AIMA recommends that the CFTC's principles consider the maintenance of equal conditions of competition, access to order types and incentives for liquidity provision.

We hope you find our comments useful and would be more than happy to answer any questions you have in relation to this submission.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Jiří Król".

Jiří Król
Deputy Chief Executive Officer
Head of Government & Regulatory Affairs



Annex

High Frequency Trading

- 1. In any rulemaking arising from this Concept Release, should the Commission adopt a formal definition of HFT? If so, what should that definition be, and how should it be applied for regulatory purposes?**

Yes, AIMA believes that it would be beneficial for the marketplace to establish a clear and consistent definition of HFT. Such a definition would become a necessity should HFT practices be subjected to specific principles.

However, as the CFTC will be aware, it is very difficult to characterise HFT in a simple manner. There appear to be numerous misunderstandings promulgated by practitioners, media and also decision makers which blur the distinction between normal algorithmic trading and HFT as a specific category of such trading. Such misunderstandings also categorise HFT as *de facto* dangerous and undesirable. The difficulty of providing a clear definition is demonstrated by the large number of broad factors contained within the TAC definition under Section II.A.1d of the Concept Release.

Overall, AIMA considers that any definition of HFT should focus principally on the negative externalities of HFT, i.e., the definition should focus on low order-to-fill ratios, high cancel rates and excessive bandwidth usage.

- 2. What are the strengths and weaknesses of the TAC working group definition of HFT provided above [see section II.A.1]? How should that definition be amended, if at all?**

AIMA supports the explicit recognition by the TAC working group that HFT constitutes a distinct subset of algorithmic trading undertaken through ATSs, thus is different to such trading. We, nonetheless, have concerns that the four attributes of HFT proposed by the TAC working group do not sufficiently reflect this distinction. In particular, we identify that attributes (a), (b) and (c) of Section II.A.1 of the Concept Release may apply equally to almost any ATS. Our proposed definition, below, makes clear that any participant's trading activities which do not meet all of the attributes should not be designated as HFT.

In relation to attribute (a) within the Concept Release - 'algorithms for decision making, order initiation, generation routing or execution, for each individual transaction without human direction' - we highlight that such algorithms are often used without human intervention by non-HFT ATSs at various stages of the investment process. The definition of HFT should take into account that a HFT strategy by nature entails a straight-through-process where order creation and execution are sequentially performed without any human and/or manual intervention, in addition to the attributes described below.

In relation to attribute (b) within the Concept Release - 'low-latency technology that is designed to minimize response times, including proximity and co-location services' - we again stress that it is entirely normal for a non-HFT ATS to apply low-latency technology without employing what can be viewed as an 'HFT' strategy. In this regard, co-location and proximity services are used by many non-HFT ATS such that their use is not a *prima facie* indicator of HFT. In particular, it is common for proximity solutions at a broker-dealer data centre to be utilised in a manner which is in no way HFT, especially by advisers trading outside of their native region. We highlight also that HFT timescales can be viewed as beyond normal low-latency trading, falling to as low as microseconds. Such low latency can be viewed as constituting the main source of an ATS's competitive advantage. Proximity hosting and co-location, for example, offer such competitive benefits only when the relevant facilities are located at the same place as the relevant exchange's/DCM's matching engine. We suggest, therefore, that attribute (b) would benefit from amendment so that it captures only technology which is 'extremely low'- relative to other market participants. The interpretation of the term 'extremely low latency' could be the subject of further CFTC work to help provide legal certainty for participants and supervisors. AIMA would be very happy to contribute.



We consider that attribute (c) within the Concept Release - 'high speed connections to markets for order entry' - is essentially the same as attribute (b) and, again, is not exclusive to HFT. High speed connections are often sought and enjoyed by ATSS seeking to execute non-HFT strategies at low-latency and in the most predictable manner possible. High speed connections, by nature, are also high volume. Greater volume capacity is desirable for both HFT and non-HFT ATSS to improve the quality of execution for all strategies, especially during periods of high volume or market volatility when many orders are being channelled and/or price movements are large and fast. In such market conditions, any delay due to an overloaded connection could have a significant negative impact on a market participant's performance. AIMA recommends that attribute (c) be amalgamated with attribute (b). The concept of a 'high-speed' or 'superfast' connection' could also be the subject of further CFTC work to assist in reaching a mutual understanding between participants and their supervisor. AIMA would also be happy to contribute to any such work.

In the context of further work on the concepts of 'high speed' and 'extremely low latency', we reiterate that the speed of development and general dynamism of trading technology mean that overly specific and prescriptive provisions are likely to become outdated very quickly or potentially gamed. Ensuring a degree of flexibility is important.

Overall, AIMA believes strongly that attribute (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' - should be the prime focus of any definition of HFT. Such an attribute does correctly distinguish HFT trading from other low-latency automated trading practices. We attribute particular significance to cancellation rates and order to fill ratios, such that we suggest that the CFTC could characterise HFT as trading that involves the cancellation of more than a certain number of orders and, thus, results in fill ratios below a certain number over a specified period of time. Of course, execution rates will differ per exchange, asset class and order type, such that the relevant levels required to be an indicator of HFT should be flexible according to the particular circumstances. In this regard, we believe that it would be beneficial for the CFTC to undertake further work, alongside its work on the terms 'extremely low latency' and 'high speed connections', to create a consistent and appropriate standard of what may be viewed as a 'low' fill ratio and what may be viewed as a 'high' cancellation rate. As highlighted above, AIMA would be eager to provide input in the development process for all of these concepts.

We would also recommend the introduction of two additional attributes which we believe are central to the nature of HFT: (i) very low portfolio turnaround times; and (ii) low net overnight, but large gross, positions.

Due to their extremely low latency and high volumes, HFT strategies often involve very short holding periods for relevant instruments traded. In this regard, average trading volume for an HFT would be significantly higher than the average inventory held. AIMA considers that an additional attribute at (e), below, could be included to take account of this fact. Additionally, HFT ATSS in general maintain small net exposures on an overnight basis to a particular market, whilst maintaining large gross positions. This attribute is not unique to HFT, however, when combined cumulatively with the other listed attributes can assist in demarcating an HFT methodology, thus we recommend an additional attribute at (f)

Overall, we believe that the definition of HFT should be as follows:

The following cumulative attributes must all be present in order for relevant trading activities to constitute High frequency trading:

- (a) algorithms for decision making **regarding** order initiation, generation routing and execution, for each individual transaction without human direction
- (b) **extremely** low-latency technology relative to other participants that is designed to minimise response times in order to gain a competitive advantage, including **superfast connections to markets through** proximity and co-location services to relevant matching engines;
- (c) [deleted]



- (d) low fill ratios and/or high cancel rates;
- (e) an average portfolio turnaround time/holding period of less than one working day; and
- (f) the maintenance of proportionately small average net overnight positions when compared to average gross positions.

3. The definition of HFT provided above uses “recurring high message rates (orders, quotes or cancellations)” as one of the identifying characteristics of HFT, and lists three objective measures ((i) cancel-to-fill ratios; (ii) participant-to-market message ratios; or (iii) participant-to-market trade volume ratios) that could be used to measure message rates. Are these criteria sufficient to reliably distinguish between ATSs in general and ATSs using HFT strategies? What threshold values are appropriate for each of these measures in order to identify “high message rates?” Should these threshold values vary across exchanges and assets? If so, how?

As we explain above, these characteristics - in addition to suggested attribute (e) on low portfolio turnaround times and (f) on small average net overnight positions - are suitable criteria to distinguish a non-HFT ATS from an HFT ATS, in combination with the other attributes identified above.

In relation specifically to threshold values for such measures, we stress that messaging and or execution rates will differ per exchange, asset class and order type. In this regard, specific thresholds should be set according to convention by exchanges in relation to their available infrastructure and objective measures of recent market behaviours.

AIMA would be happy to contribute to any further CFTC work on principles for such thresholds.

4. **Should the risk controls for systems and firms that engage in HFT be different from those that apply to ATSs in general systems? If so, how?**

We consider that risk controls should be calibrated in the most efficient manner according to the particular characteristics of a firm’s ATS(s) and the strategy pursued. Both HFT and non-HFT ATSs involve the employment of algorithms as a method of transacting and can pose similar kinds of risks. Nonetheless, we consider that a distinction needs to be made between ordinary ATSs and ATSs which engage in HFT in order to capture the specificities of the HFT ATS and any particular strategy being run.

Dangers of HFT essentially revolve around an error in the application of the system, for example through entering bids and offer limits the wrong way around. HFT risks are specific in that any events occur faster than any human can react, such that automated risk management with equivalent latency capabilities is necessary. Non HFT ATSs, even when low-latency, are able to be monitored by human supervisors such that any errors or malfunctions can be identified and solved manually. Response time to errors is key for effective HFT ATS risk controls.

Reductions in Latency

5. **Discussions on latency often focus on the how quickly an exchange processes orders, the time taken to submit orders, and how quickly a firm can observe prices of trades transacted on the exchange. The Commission is interested in understanding whether there are other types of messages transmitted between exchanges, firms and vendors wherein differences in latency could provide opportunities for informational advantage. Recent press reports have highlighted such advantages in the transmission of trade confirmations by a specific exchange. Are there other exchanges and trading venues where similar differences in latency exist? The Commission is interested in understanding whether the extent of latency in any such message transmission**



process can have an adverse impact on market quality or fairness. Should any exchanges, vendors and firms be required to audit their systems and process on a periodic process to identify and then resolve such latency?

As the technology available to both participants and brokers improves, the latency advantage of co-location/proximity hosting versus DMA versus indirect access via a broker is less clear today than five years ago. Our members perceive the most important issues for their ATS businesses to be non-discriminatory access to connectivity, technology, relevant fee structures and messaging types.³ For example, we believe that 'market-maker' privileges should only be given in a balanced way in order to compensate for any market-making obligations.

AIMA, nonetheless, would support the introduction of new requirements for transparency on latency. This could take the form, for example of a requirement for brokers and exchanges to report the exact times an order hits their front office systems, when it hits the matching engine and/or when it is subsequently matched. Prior to the implementation of such a requirement, an industry wide regime could be introduced for the reporting of average latency times on a quarterly basis so as to monitor overall quality of execution. It is current practice for many brokers not to make this information available in order to prevent clients from being able to track such latency information. Currently, buy-side participants are only able to access this information when transacting as a DMA member of an exchange. We have concerns that this could be detrimental to the efficiency of markets as it may provide a barrier for non-DMA clients to monitor the quality of their execution.

We also believe that adverse impacts on market quality could be avoided by the implementation by exchanges of systems to ensure that their matching engines and infrastructures for disseminating market data are sufficiently large to avoid high latency at high volume peaks.

Financial Integrity of the DCO

- 6. Are there distinct pre-trade risk controls, including measures not listed below, or measures in addition to those already adopted by the Commission, that would be particularly helpful in protecting the financial integrity of a DCO?**

We do not consider that additional measures over and beyond those listed within the Concept Release are necessary. The measures listed - in particular, message and execution throttles, maximum order sizes, and price collars - are sufficient.

Risk Controls Applicable in the Case of DMA

- 7. Are there distinct pre-trade risk controls, including measures not listed below [see section III.C.], or measures in addition to those already adopted by the Commission, that should apply specifically in the case of DMA?**

We consider that risk controls should be broadly similar and should be applied at the level of the exchange, FCM and investment firm trading on its own account, regardless of whether market access is through DMA or via an FCM or executing broker. Of course, CFTC principles should be more robust for situations in which the relevant entity has a direct connection with the market, thus has a greater risk potential for disruption.

We note, however, that each entity has certain attributes to be taken into account when setting controls. DMA, for example, will facilitate the identification of a client, whilst an FCM/executing broker scenario may enable the FCM to set-up client specific limits in addition to limits specific to its own status.

Message and Execution Throttles

³ In this regard, AIMA is supportive of the CFTC's intention to finalise its rulemaking on co-location by the end of the year.



8. If, as contemplated above [see section III.C.1], maximum message rates and execution throttles were used as a mechanism to prevent individual entities or accounts from trading at speeds that are misaligned with their risk management capabilities, how should this message rate be determined?

AIMA does not support the application of a prescriptive maximum message rate. A single threshold for message and execution rates would unlikely be suitable for all ATSs. As we highlight above, we believe in a principles based approach that ensures measures are tailored to the specificities of each ATS. In this regard, we recommend that limits are not only varied between exchanges, trading firms and the asset classes, but also by specific instruments and their particular liquidity levels. Both exchanges and participants also need to be able to adjust these limits according to changes in market environment.

For exchanges, throttles should be set per contract according to the maximum order rates of which their particular technological infrastructure are capable. The levels at which the CME and EUREX excessive system usage' fees are implemented could provide a gauge of the levels at which throttles could be calibrated at exchange level.

In addition, it is important that each trading firm operating an ATS has its own throttle system calibrated according to the firm's particular business and strategy. We recommend that principles ensure that trading firm throttles are set to limit trading above a maximum anticipated level, such that normal trading behaviours would never trigger the throttle.

9. Message and execution throttles may be applied by trading firms (FCMs and proprietary trading firms), clearing firms, and by exchanges. The Commission requests public comment regarding the appropriate location for message and execution throttles.

As we argue above, the most efficient and well tailored approach to throttles would be one in which each entity involved in the transaction chain maintains respective throttles according to their particular systems capabilities, business and trading activities.

To compel trading firm throttles to be set at the exchange level, for example, would be overly blunt and potentially restrictive through a lack of in-depth knowledge of particular firm's circumstances and strategies. AIMA stresses that it is the trading firm itself that has greatest knowledge of its systems capacity and the risks posed by a particular ATS. Principles, therefore, should enable systems to be calibrated at a level which enables the utilisation of this knowledge to as great a degree as is possible, subject to robust supervision and enforcement by the CFTC.

- a. If throttles should be implemented at the trading firm level, should they be applied to all ATSs, only ATSs employing HFT strategies, or both?

If throttles are to be applied at the level of the trading firm, they should be applied to both general ATS and ATSs employing HFT strategies. A purpose of risk controls for non-HFT ATSs generally, for example, should be to prevent the non-HFT ATS from behaving like an HFT ATS. Appropriately calibrated throttles can prevent this from happening.

Of course, it is important that throttle limits are able to be differentiated for both HFT and non-HFT ATSs according to the specifics of a particular firm, the characteristics of its ATS(s) and its particular trading strategy.

- b. What role should clearing firms play in the operation or calibration of throttles on orders submitted by the trading firms whose trades they guarantee?

Clearing systems could act as a redundant systems safeguard in addition to trading firm throttles.

10. Should the message and execution throttles be based on market conditions, risk parameters, type of entity, or other factors?



As we explain above, a flexible principles based approach to message rates and execution throttles would take into account various factors, including risk parameters and the type of entity. AIMA considers, for example, that some market participants might be more willing and able to handle higher message rates without posing increased risks when compared to other participants.

Of course, AIMA does not wish to introduce undue complexity in relevant throttle calculations which could increase costs from the point of view of both supervisors of market participants. We believe, therefore, that principles for message and execution throttles should be as simple, clear and consistent over time as possible in order to avoid potential implementation and interpretation errors.

11. What thresholds should be used for each type of market participant in order to determine when a message or execution throttle should be used? Should these thresholds be set by the exchange or the market participant?

AIMA believes that any ATS connection between a market participant and the DCM or FCM should have an appropriately calibrated throttle. Thresholds for these connections should be set by the market participant according to CFTC principles, not the by the exchange. As we explain in our answers above, market participants, and not exchanges, are in the best position to judge what may be considered 'normal' for a participant's ATS.

Of course, these throttles should not be viewed in place of centralised controls at the exchange and FCM level set according to the particular market and the exchange/FCM's own systems capabilities.

Please see our answers to Q.8 and 9.

12. Are message and execution thresholds typically set by contract, or by algorithm? What are the advantages and disadvantages to each method?

For futures and options, throttles would be set *per* contract and, also, *per* connection.

Per algorithm throttles, however, are not suitable and could have a counterproductive impact upon ATS risk management. Within an ATS, a single algorithm often interacts with tens, if not hundreds, of other algorithms in generating a trade. To limit the output of a single algorithm could distort the entire output of an ATS. The ATS must be looked at as a whole.

13. Who should be charged with setting message rates for products and when they are activated?

We consider that message rates should be set and activated primarily at exchange level. In relation to exchange level message rates, it is only the exchange that has the requisite knowledge of the overall message flow relating to a product and the capabilities of its system, therefore, only the exchange can set meaningful levels.

Similarly, participant entities operating ATSS - be they indirect via an FCM or trading through DMA - have the best knowledge of their own trading plans for particular products and the capabilities of their ATSS for those products, therefore, are best placed to calibrate their own message rates to prevent disruption. Responsibility for activating those rates, nonetheless, should rest with the entity with the relevant connection to the exchange. If an indirect participant trades through an FCM, then the FCM should be responsible, if the participant utilises DMA, then it should be the relevant participant that is be responsible.

14. Would message and execution throttles provide additional protection in mitigating credit risk to DCOs?



We believe this could be the case indirectly, as message and execution throttles at participant and exchange level, when calibrated appropriately, would avoid faulty orders and erroneous infinite loops.

Volatility Awareness Alerts

15. The Commission is aware that alarms can be disruptive or counterproductive if “false alarms” outnumber accurate ones. How can volatility alarms be calibrated in order to minimize the risk that false alarms could interrupt trading or cause human monitors to ignore them over time?

AIMA recommends that CFTC principles seek to ensure that firms are motivated to implement volatility alarm measures that are customised to their particular business activities and processes.

Most trading firms already apply some type of volatility alarms (i.e., for market dislocations). By scenario testing these alarms against historical data, trading firms should be in a position to find appropriate price fluctuation limits to be monitored.

Self-Trade Controls

16. What specific practices or tools have been effective in blocking self-trades, and what are the costs associated with wide-spread adoption of such practices or tools?

Large buy-side firms with multiple, separate trading arms can trade many uncorrelated strategies for different clients. AIMA considers that a certain amount of self-trading is unavoidable in such circumstances, especially in low volume/liquidity products. We, nonetheless, stress that no firm should have an interest in self-trading outside of inadvertent systems errors or abusive behaviour, as such trades simply generate additional dealing costs with no economic gain through the trade.

To minimise dealing costs, thus indirectly minimising opportunities for self-trading, buy-side firms net-off thousands of different models between different funds and will often have systems which aggregate orders to one trade. Costs associated with such tools, if implemented internally by market participants, are extensive.

17. Please indicate how widely you believe exchange-sponsored self-trading controls are being used in the market.

We identify that a number of exchanges have rules in place to prevent ‘wash trades’⁴ or ‘crossing trades’⁵, which are monitored at the level of the firm trader ID. However, the CME framework described within the Concept Release, in addition to the ICE futures functionality introduced last month, are the first specific exchange-sponsored initiatives on inadvertent self-trading that we know about.

18. Should self-trade controls cancel the resting order(s)? Or, instead, should they reject the taking order that would have resulted in a self-trade? If applicable, please explain why one mechanism is more effective than the other.

The CME initiative described within the Concept Release adds a principal ID fix tag per-account in order to detect self-trading by a particular firm. AIMA members believe that this could be a helpful initiative. However, it is noteworthy that the CME initiative will reject trades which self-trade, regardless of the frequency at which this occurs. We do not believe that obligatory controls involving the mandatory rejection/cancellation of trades in general are desirable. AIMA suggests that it could be equally useful,

⁴ When a participant submits a buy order through one broker, but counters this with a corresponding sell order through another broker. Thus, creates a perception of volume without stocks ever changing beneficial owner.

⁵ Where buy and sell orders for the same stock are offset without recording a trade on the exchange, usually when a broker executes both a buy and sell from one client account to another where both accounts are managed by the same portfolio manager



whilst less intrusive into the *bona fide* activities of an ATS, to utilise an alarm system in any self-trade control that monitors trading behaviour, such that a DCM is able to inform an DMA participant or FCM, on a confidential basis,⁶ that they are self-trading above a certain threshold and that this should be investigated. Of course, should a buy-side participant wish to utilise the technology available to cancel any self-trade orders for its particular risk management objectives, we support the possibility to voluntarily opt-in to self-trade cancellations.

If the system, nonetheless, is calibrated to reject / cancel self-trade orders, we would not have any strong preference over which order is rejected / cancelled. We would suggest that it may be preferable for both orders to be rejected in order to avoid unbalancing either of the trades into which an entity has inadvertently entered with itself should an alternative counterparty not be found.

19. Should exchanges be required to implement self-trading controls in their matching engines? What benefits or challenges would result from such a requirement?

We believe, fundamentally, that exchanges should have the functionality to be able to monitor self-trading in order to oversee the integrity of their markets. Whether such monitoring takes place pre-execution or via a matching engine should be discussed with the DCMs according to their particular infrastructure.

AIMA also agrees that exchanges should be required to implement self-trading controls for participants within their matching engines. However, we would reiterate our general position (as described in our answer to Question 18, above) that controls involving the mandatory rejection/cancellation of trades, in general, are not desirable. In this regard, such self-trade controls should include mandatory confidential flagging of self-trades to the relevant participant, but only optional cancellations of orders.

We would also urge the CFTC to opine that *bona fide* inadvertent self-trades which lack intent are not 'wash trades' under Section 4c(a) of the Commodity Exchange Act and are not *prima facie* disruptive from the perspective of market formation. For example, a large trading firm may operate numerous trading desks applying various different strategies without an internal marketplace. In this situation, one desk may coincidentally trade with another, resulting in what could be viewed as a 'self trade'. We do not consider such a transaction to be deceptive for the market as it represents *bona fide* participation and has no intention to mislead or distort market conditions. To eliminate such trading within a firm through internal communication systems would also likely be disproportionately expensive with no objective benefit for market conditions. Similarly, a situation could arise for an investment fund in which a client seeks to redeem his investment, requiring the firm to place a trade disposing of an asset, whilst at the same moment, market conditions and the relevant strategy could compel the firm to place an opposing trade to purchase the same asset for the benefit of the other clients in the fund. Again, this would be a 'self trade', however, would represent *bona fide* activity which would not distribute misleading signals across a particular market.

Bearing in mind these examples, we believe that effective monitoring and confidential flagging of self-trades by exchanges, combined with robust ex post enforcement against abusive behavior should be the fundamental approach of CFTC principles. Of course, participants should be given the optionality to opt-in to relevant self-trade cancellation systems, should they feel that it is suitable for their businesses.

AIMA has certain concerns that self-trading controls along the lines of those implemented by CME would not necessarily be effective in preventing intentional disruptive self-trading and could simply be gamed. A rogue trading firm intent on manipulating the market, for example, could circumvent trader ID based controls simply by incorporating a shell company to undertake trading under a different ID.

20. Please explain whether regulatory standards regarding the use of self-trading control technology would provide additional protection to markets and market participants.

⁶ Relevant CFTC principles could include, for example, a requirement that relevant systems should ensure confidentiality of market participant's trading, such that competitors are not able to utilise relevant ID and self-trade data to reverse engineer a strategy and gain an unfair competitive advantage.



AIMA supports CFTC principles for the use of confidential self-trade alarms and optional trade cancellation, with ongoing CFTC supervision. As we explain above, there are merits to self-trading controls which capture relevant transactions which are not intended to take a bona fide position in the market. The technology related to such controls, however, is not yet sufficiently mature to merit the implementation of regulatory standards. We would recommend, therefore, that the CFTC enable relevant exchange technology to develop further before considering relevant standards.

Should work on standards take place, AIMA would also recommend that confidentiality safeguards be central to the functionality of self-trading controls.

21. If you believe that self-trading controls are beneficial, please describe the level of granularity at which such controls should operate (e.g., should the controls limit self-trading at the executing firm level? At the individual trader level?) What levels of granularity are practical or achievable?

For self-trading alarms, we believe that there should be a principal account tag in the fix message for these purposes. It would then be up to the trading firm to assign principal account IDs to traders or strategies.

The overall approach taken would depend on the infrastructure and complexity of the trading firm. If a trading firm chooses to apply a less granular standard, there will, of course, be more possibility for self-trading and a need to explain any such activity.

AIMA considers that each trading firm should be in a position to explain their principal account ID assignment. It should not be possible to give several principal account ID's to the same legal entity.

22. If you believe that self-trading controls are beneficial, please explain whether exchanges should require such controls for market participants and identify the categories of participants that should be subject to such controls. For example, should exchanges require self-trading controls for all participants, some types of participants, participants trading in certain contracts, or participants in market maker and/or incentive programs? What benefits or challenges would result from imposing such controls on each category of participant?

We believe it would be beneficial for the marketplace to effectively monitor self-trading activity by all participants. The most important challenge our members face regarding the application of such controls is the possible loss of anonymity as orders will be tagged when communicated to FCMs and/or DCMs. This could lead to a lack of competitive advantage for certain participants should these be made public.

Price Collars

23. The Commission is aware that some exchanges already have price collars in place for at least a portion of the contracts traded in their markets. Please comment on whether exchanges should utilize price collars on all contracts they list.

AIMA considers that price collars for cancelling orders that are materially outside the current price band would appear to be beneficial to the market place in order to avoid fat fingers and other erroneous orders which could distort market conditions. However, unless calibrated in an appropriate manner, we would have concerns that directional price collars, such as limit up or limit down rules, to address extraordinary market volatility would impose adverse negative consequences and impede the efficient price discovery function of an exchange.

It is beneficial for liquidity and price formation that market participants are able to show their bids and offers to as great a degree as possible. Notwithstanding the fact they may be far from the market, market participants should encouraged, not dissuaded, from placing bids and offers far above or below the current market price. The existence of resting bids and offers prevent extreme market volatility, since such limit orders offer an important cushion at times that a market is moving. The risk that an order may be



cancelled, however, is sufficient to disincentivise participants from trading. AIMA, therefore, strongly recommends that, if applied, price collars are adequately calibrated and harmonised per product by exchanges and subject to a CFTC principle that collars are sufficiently wide to promote liquidity.

A preferable alternative to price collars would be a temporary trading pause of between one and five minutes for a particular product, harmonised across all venues on which that product is traded.

A potential additional alternative to price collars to maximise liquidity during periods of volatility is the appropriate adjustment of maker-taker fees. By lowering the maker fee, spreads can be narrowed such that unnecessary volatility is minimised and market depth is maintained, although we believe that relevant fee structures to avoid volatility should be calibrated by the particular exchange rules, subject to CFTC principles, as particular care must be taken to avoid exacerbating volatility or creating unintended consequences.

At all times, if a collar or pause is activated such should also be clearly flagged on the relevant trading platform screens and regulatory data feeds so that participants become aware as soon as possible.

24. Would price collars provide additional protection in mitigating credit risk to DCOs?

Price collars could yield positive results in mitigating such credit risk, although we have concerns that such price collars might also have the unintended consequences of reducing the ability to hedge in stressed markets if set too narrowly.

Maximum Order Sizes

25. Are such controls typically applied to all contracts and customers, or on a more limited basis?

These would normally be applied per product at the level of the DCM and the FCM to all customers.

26. Do exchanges allow clearing members to use the exchange's technology to set maximum order sizes for specific customers or accounts?

Since it is in the best interest of customers and clearing members, we believe that participants already have this type of technology in place with many brokers. The difficulties lie more in setting pre-trade maximum order size filters with exchanges when trading via DMA.

27. Would additional standardization in the capabilities of this technology or more uniform application of this technology to all customers and contracts improve the effectiveness of such controls?

We consider that it could be helpful for relevant CFTC principles to develop a uniform XML / API definition for communicating risk limits to counterparties and DCMs, as well as receiving warnings and alerts. Today there is a plethora of procedures on this point which are most often operated manually or over email. There is also often no technology for the trader to query the limits set at brokers or DCMs. Confirming that these have been set effectively can be difficult.

28. To what extent are clearing firms and trading firms conducting pre-trade maximum order size screens? Please explain whether firms are conducting such screens by utilizing: (1) Their own technology; (2) the exchange's technology, or (3) a combination of both.

This would usually take place at the trading firm and the FCM level. Exchanges seem to have limited technology to deal with this.



29. Would regulatory standards regarding the use of such technology provide additional protection to the markets?

AIMA members identify that such technology is already widely use but should be standardised through an 'operational risk API' for two way communication on risk limits, alerts and warnings.

Trading Pauses

30. Trading pauses, as currently implemented, can be triggered for multiple reasons. Are certain triggers more or less effective in mitigating the effects of market disruptions?

Trading pauses may prove useful in mitigating market disruptions, although they are less likely to be needed if the other pre-trade risk measures discussed are working properly.

It is vitally important that the relevant triggers include a requirement that a DCM market feed include a flag for each instrument currently subject to the pause. In current markets, such flagging is not always present, such that the imposition of a pause might result in disruption.

32. What factors should the Commission or exchanges take into account when considering how to specify pauses or what thresholds should be used?

AIMA believes that it is important to consider the impact of trading pauses on markets. Pauses, for example, must be taken into account by participants when writing algorithms for their ATS. In this regard, pauses can add an extra element of complexity such that their use could have artificial impacts upon markets and the ATSs participating within them which are more disruptive than if the pause had not been implemented. A pause could result in panic among participants as orders stack up but are unable to be filled. Likewise, if a market is to be restarted via an auction, participants may have to pull orders upon the activation of a pause as, due to their investment mandates, they may be unable to participate. Overall, AIMA appreciates that it is very hard to implement a pause so as to enable market volume to catch up with particular pricing without hurting those participants with open orders or still actively running particular programmes despite the volatility.

We believe strongly that pauses should be no longer than is necessary to calm a particular situation. Short pauses of no more than five minutes should be specified.

We also recommend that when a pause is activated a kill-switch option should be available to market participants to ensure the cancelation of all existing limit orders.

33. How should the re-opening of a market after a trading pause be effected?

AIMA recommends that when a trading pause expires and trading recommences, this should be clearly flagged on relevant data feeds. This will help minimise disruption among market participants and ensure that markets do not continue to function erroneously post pause.

As we describe, above, restarting a market via an auction could impact negatively upon certain participants which are unable or not willing to take part.

Credit Risk Limits

34. What positions should be included in credit risk limit calculations in order to ensure that they are useful as a tool for limiting the activity of a malfunctioning ATS? Is it adequate for such a screen to include only those positions entered into by a particular ATS or should it include all the firm's positions?



AIMA does not support the imposition of pre-trade credit risk limits. We believe that such checks would pose huge complexity for market participants also risk miscalculations.⁷

Any calculation of a credit risk limit would have to be exceedingly simple to ensure consistency among all counterparties which undertake the calculation in relation to a particular entity. Should different counterparties arrive at different numbers, systemic bugs could arise. In particular, it could be the case that traders are unable to place trades in the best interests of their clients due to the checking engine not working correctly and the increased latency resulting from such checks and, even if a calculation is made, the complexity of the process could result in different firms reaching different conclusions, thus distorting conditions of competition.

We suggest that a more simple arrangement, whereby counterparties agree a contract exposure limit per day, would be as effective and more easily handled operationally. Also, in light of the suite of other pre-trade measures contained within the Concept Release, we do not support pre-trade risk checks.

Credit-based limits should only be applied by the clearing broker in a low latency post-trade system. This post trade system could also be applied to both DMA and broker access to markets.

35. Should pre-trade credit screens require a full recalculation of margin based on the effect of the order?

No, it is impossible to undertake such a calculation pre-trade in an accurate manner. We highlight that a full margin calculation is also unrealistic and would be crippling resource intensive.

AIMA would recommend that if the CFTC wishes to require any pre-trade checks at the level of the DCM or the FCM, this should involve a more fundamental test such as a maximum order size test or an order rate throttle. These may be carried out as post-trade low latency tests.

36. In light of your answers to the previous two questions, where in the lifecycle of an order should the credit limits be applied and what entity should be responsible for conducting such checks?

As we explain above, pre-credit limits are not suitable. Such should be limited to a pre-trade maximum order size and throttle at the level of the DCM and FCM. Any credit limit should be limited to post trade processing by the clearing broker.

If an entity executes directly, the entity responsible for applying such limits should be the exchange, and if the entity executes via DMA, the relevant participant's prime broker should be responsible.

37. If credit checks are conducted post-trade, what should be done when a trade causes a firm to exceed a limit?

AIMA believes that true credit checks may only be carried out post-trade.

If there is a breach, the situation should be discussed between the participant firm and the clearing broker. If it is concluded that the breach is within 'market' limits although outside 'client' limits, the breach should be dealt with in an alternative manner without impacting upon the trade, for example, by not letting the firm trade further with a particular counterparty, except for risk reducing trades. We would, nonetheless, caveat this with a warning that a 'risk reducing' trade is difficult to define, as the opposite leg of the position might be at another exchange. In such a situation, the risk reduction can only be observed at the portfolio level - not at the level of the exchange or the clearing broker. This would also be the case, for example if a company used multiple clearers.

⁷ For example, if credit risk limits are to be applied, all positions of the counterparty need to be reflected in a credit check. Looking only at a particular subset might give a misleading picture of the exposure, thus rendering the check meaningless.



38. Please describe any technological limitations that the Commission should be aware of with respect to applying credit limits.

Undertaking a fast credit check pre-trade is especially difficult. As explained above, AIMA considers that this should be converted to an alternative check per counterparty that can be implemented using a very simple algorithm, such as maximum order size and an order rate throttle. Any hard credit risk limits should be operated post-trade.

39. The Commission is particularly interested to receive public comment on the “hub” model and its applicability to different types of pre-trade risk controls. What are the strengths and weaknesses of this approach relative to other pre-trade or post-trade approaches to checking trades against credit limits? How would the latency between the “hub” and the exchanges be managed to provide accurate limits for high frequency ATS?

AIMA believes that a pre-trade hub model is unrealistic and would introduce both latency and increased risk to the entire system of markets.

In particular, we are concerned that such a hub would soon turn out to become a monopolistic provider, with little incentive to develop its technology, such that creating a low-latency architecture around such a hub would be impossible. Even post-trade this would be difficult. We understand that there are initiatives in the pipeline to initiate such a hub for cleared OTC transactions, but we are, however, concerned that this will prove to be detrimental to the development of an efficient market place. We stress that the futures market has been working properly for decades without such checks.

Such a hub would also introduce a single point of failure, which, due to the incredible level of systems complexity required, is likely to fail at a point in the future, thus taking all relevant markets down with it.

To impose additional checks is, in our opinion, unnecessary and would merely impose additional costs and risks upon participants.

40. If you believe that post-trade credit checks would be an effective safeguard against malfunctioning ATSS, what is the maximum amount of latency that should be allowed for conducting such checks? What technological or information flow challenges would have to be addressed in order to implement post-trade checks with that degree of latency?

AIMA supports the application of post-trade credit checks as an effective safeguard against malfunctioning ATSS. We consider that under CFTC principles, DCM's should be required to send drop copies of checks to clearing brokers and trading firms within 100 ms.

Current market practice today results in such reporting taking up to a few minutes or even hours with certain counterparties.

41. With respect to any entity that you believe should be responsible for applying credit risk limits, please describe the technology necessary to implement that risk control and the cost of such technology.

Additional technology costs would be incurred by DCMs through developments to enhance their communication channels for drop-copies.

Costs at the FCM level for credit risk limits would be associated with technological developments dependent upon the complexity of the relevant credit/margin model to be applied. AIMA nonetheless believes that FCM's already have most of this technology, albeit for a less complex margin model.

Order, Trade and Position Drop Copy



42. What order and trade reports are currently offered by DCMs and DCOs? What aspects of those reports are most valuable or necessary for implementing risk safeguards? Please also indicate whether the report is included as part of the exchange or clearing service, or whether an extra fee must be paid.

Currently, drop copies are often not made available by DCMs or DCOs at all. If they are, they are usually not available any faster than a minute post-trade.

AIMA believes that CFTC principles should require the provision of low-latency, i.e., <100ms, drop copies by all DCM's to both FCM's and trading firms. We consider that this measure would be key in enabling trading participants to have an order confirmation which is independent from the front-office channel.

43. If each order and trade report described above were to be standardized, please provide a detailed list of the appropriate content of the report, and how long after order receipt, order execution, or clearing the report should be delivered from the trading platform to the clearing member or other market participant.

AIMA has not had an opportunity to think in depth in relation to this, although we would be very happy to contribute to any CFTC proposal for a standardised report at a later date.

Trade Cancellation or Adjustment Policies

44. Is a measure that would obligate exchanges to make error trade decisions (i.e., decisions to cancel a trade or to adjust its price) within a specified amount of time after an error trade is reported feasible? If so, what amount of time would be sufficient for exchanges, but would be sufficiently limited to help reduce risk for counterparties to error trades?

The amount of time within which trades may be adjusted should be as low as possible. One hour seems to be the absolute maximum, with a backstop at the end of the trading day. AIMA highlights that all parties need certainty on their trading positions as soon as possible and before the end of the day. We believe that decisions to cancel a trade should be prevented or, at least, avoided. Any such cancellations would have a negative impact, for example, on hedges and the execution / assignment of derivatives. AIMA believes strongly that, even in the most extreme scenarios, trades could be adjusted.

We recommend that the CFTC attempt to shape a trading environment in which market participants have sufficient confidence in all market mechanisms so that they voluntarily post firm quotes on a continuous basis. During periods of market volatility, especially, exchanges benefit from the presence of market participants who are willing to place bids and offers and thereby contribute to price stability. Market participants maintain risk policies that result in the withdrawal of their systems from the market in certain scenarios. Volatile market conditions, combined with a risk that good faith orders are cancelled *ex post*, are sufficient to trigger these. As an example, some existing cancellation policies of regulated markets enable an exchange to retrospectively cancel trades. These expose investment firms to a risk that orders entered into in good faith with the legitimate expectation that they may be filled, are cancelled. This would leave the aforementioned investment firms with an unexpected uncovered position. Any chance that a trade may be cancelled would have a huge impact on firms risk management and would likely break a firm's risk limits. If the cancellation takes place near to the close of the relevant market, this could leave a firm with a huge overnight risk that could, in fact, be firm threatening. To counteract this risk, the most effective option that firms will take is simply not to post orders.

45. Should exchanges develop detailed, pre-determined criteria regarding when they can adjust or cancel a trade, or should exchanges be able to exercise discretion regarding when they can adjust or cancel a trade? What circumstances make predetermined criteria more effective or necessary than the ability to exercise discretion, and vice versa?



Yes such metrics must be pre-determined. In this way participants can determine when contract formation is unclear. In this regard, AIMA would suggest that to the extent such cancellations are introduced, detailed and clear rules need to be established by exchanges, in accordance with relevant CFTC principles.

46. Do error trade policies that favour price adjustment over trade cancellation effectively mitigate risk for market participants that are counterparties to error trades? Are there certain situations where canceling trades would mitigate counterparty risk more effectively? If so, what are they and how could such situations be identified reliably by the exchange in a short period of time?

AIMA stresses that trade cancellations should be an absolute worst case solution to be used only when there has been a major issue with market integrity. AIMA considers that price adjustments are preferable because cancellations might leave the counterparty with an unwanted risk through an unbalancing of a hedged position.

47. Should error trade policies be consistent across exchanges, either in whole or in part? If so, how would harmonization of error trade policies mitigate risks for market participants, or contribute to more orderly trading?

We believe that error policies should be consistent across different exchanges. Exchanges should apply the same or similar procedures and metrics per asset class and/or contract type in accordance with any relevant CFTC principles.

Order Cancellation Capabilities

48. The Commission's discussion of kill switches assumes that certain benefits accrue to their use across exchanges, trading and clearing firms, and DCOs. Please comment on whether such redundant use of kill switches is necessary for effective risk control.

For exchange kill switches it is vitally important that any kill switches are harmonised across any exchanges on which the same contract is traded. To apply a kill on one exchange but not the other would risk arbitrage.

AIMA, in particular, supports the option for participants to apply kill switches for all open limit orders when used in conjunction with a relevant exchange 'heartbeat'. We also consider that there should be a possibility for trading firms to undertake mass cancellations. Nonetheless, we believe strongly that such a kill switch should not be applied universally among buy-side participants. For example, if a heartbeat was lost part way through the process of an execution algorithm which has sliced an order into thousands of sub-orders, to cancel and have to replace each of these orders would be incredibly expensive for the end client. In this regard, we reiterate the importance of tailoring and flexibility. Certain firms and certain strategies will be better suited to such tools than others. Therefore, we support optionality for such kill switches.

Overall, AIMA considers that kill switch tools are useful, but should always be a redundant option viewed in combination with other systems safeguards.

49. What processes, policies, and procedures should exchanges use to govern their use of kill switches? Are there any different or additional processes, policies and procedures that should govern the use of kill switches that would specifically apply in the case of DMA?

We believe that CFTC principles should ensure that all kill switches used in the case of DMA are capable of being activated in response to a break in a referenced 'heartbeat' between the ATS and exchange.



52. What benefits or problems could result from standardizing processes, policies, and procedures related to kill switches across exchanges and/or clearing firms?

Similar to our responses above, AIMA would be concerned by a system of prescriptive or 'one-size-fits-all' rules regarding the use of kill switches. We would advocate that CFTC principles be adopted, which should then be calibrated according to the specificities of a particular exchange and/or clearing member.

53. Please explain how kill switches should be designed to prevent them from cancelling or preventing the submission of orders that are actually risk reducing or that offset positions that have been entered by a malfunctioning ATS.

AIMA does not believe that any standardisation of kill switches should be prescriptive. In accordance with our position in support of a tailored approach to risk controls and measures, we recommend that kill switches are set taking into account the specific characteristics of different products, clients and the ways the latter operate in markets, including market participants' current positions. We propose, in particular, that CFTC principles for the implementation of kill switches could ensure that when a switch is triggered, participants are able, nonetheless, to continue trading when such trades result in a reduction in their position.

We also strongly recommend that, wherever possible, kill switches are designed to take into account same or correlated assets across trading venues. If that is not the case, a kill switch may seriously affect market participants' risk management. For example, a trader that opens a cash position on one exchange and a corresponding derivative position for hedging purposes on another might have his hedged position unbalanced should a kill switch eliminate one position, but not the other.

54. The Commission requests comment regarding whether kill switches used by clearing firms already have or should have the following capabilities: (a) Distinguish client orders from proprietary orders; (b) distinguish among orders from individual clients; and (c) cancel working orders and prevent additional orders from one or more of the clearing firm's clients, or for all the clearing firm's proprietary accounts, without cancelling and preventing all orders from the clearing firm.

AIMA believes that a kill switch for a clearing firm should be able to clearly distinguish between firms' proprietary orders and client orders, in addition to distinguishing between individual clients' orders. The situation of the Options Clearing Corporation, where all options trading on a give-up basis is governed by one single Clearing Member Trade Agreement for all clients, is not a desirable one.

Any refusal to process orders should be on an individual account level. This may increase the likelihood of using kill switches, but we consider that the use of switches will be better adapted to the risks to be mitigated.

55. The Commission is aware of proposals that would enable FCMs to establish credit limits for customers that are stored at a central "credit hub" for the purpose of pre-trade credit checks. If such a model were implemented, is it possible that it could also be enabled with kill switches that cancel existing working orders and prevent additional orders from being submitted by one or more market participants? Should such an approach be designed to complement kill switches that are controlled by exchanges, clearing members, and trading firms, or to replace these kill switches? What benefits and drawbacks would result from each approach?

AIMA, as explained above, would advise against implementing proposals for a 'hub'. We think this is unrealistic and would inhibit the development of an efficient liquid market place. Traders may become frustrated when they are unable to trade due to latency in the credit system or a possible bug. Any netting set-ups would also be difficult to simulate pre-trade.

We believe that the credit relationship between the trading firm and the clearer should be based on the 'Know-Your-Client' work of the clearing firm in relation to its client.



ATS Testing

56. Please describe the necessary elements of an effective ATS testing regime, in connection with both the initial deployment and the modification of an ATS.

Trading firms have developed clear policies for producing and implementing new ATSs. Each buy-side firm should have their own robust and tailored testing policy in accordance with which testing is undertaken. However, firms understand that there is no universal testing method or software that is infallible. Firms, therefore, implement a well-defined chain of decision making for putting any new/modified ATS component into the market which often involves a gradual 'phase-in' of the algorithm with low value trades.

Currently testing usually involves a combination of: component testing, integration testing, stress testing and separate additional risk controls that are off-limits to the relevant model designer. The latter final barrier is important to prevent a rogue programmer from improperly testing a model and leaking it onto the market.

We also note the recent introduction by NASDAQ of a response test order book. This active testing tool involves a simulated order book to assist in testing. AIMA identifies that such systems will be available from exchanges increasingly over the next six months. We believe that all exchanges may well make such systems available within five years.

As we explained within the covering letter above, it is often the case that algorithms are not developed in the US, rather by a non-US entity subject to foreign rules. We urge the CFTC to consider how it will deal with the testing of an algorithm developed by a vendor that is established, for example, in a non-US jurisdiction and is subject to its own national regulatory regime for ATS testing.

57. With respect to testing of modifications, how should the Commission and market participants distinguish between major modifications and minor modifications? What are the objective criteria that can be used to make such distinctions? Should any testing regime applicable to ATS modifications distinguish between major and minor modifications, and if so, how?

AIMA considers that any attempt to distinguish between major and minor modifications would be difficult and unrealistic. We highlight that the diverse nature of ATSs meant that a 'minor' change to one system may constitute a 'major' change to another. In general, there are no such objective criteria, as each ATS is designed differently.

It is desirable that when components or algos are developed they are certified within certain parameter ranges - subsequent changes within these ranges then should not need re-testing. Whether changes exceed this parameter, we believe, should be a judgement that should be reserved for each participant according to a set of CFTC principles and not subject to prescriptive regulation.

58. What challenges or benefits may result from exchanges implementing standardized procedures regarding the development, change management and testing of exchange systems? Please describe, if any, the types of standardized procedures that would be most effective.

We do not believe that regulators should standardise software development and testing processes with prescriptive rules. As we explain, above, ATSs are diverse in nature, as are the markets in which they are likely to be employed. A principles based approach is much preferable to ensure the flexibility of testing systems to account for the differences in ATS, whilst ensuring that a minimum standard can be enforced.

As we explain, above, it must be appreciated that there is no universal testing system that is suitable for all ATSs and no testing processes are infallible.



CFTC principles could, therefore, create a legal requirement for a certain standard of testing and change management. For example the Department of Energy Software Engineering Methodology or standards of the Institute of Electrical and Electronics Engineers ISO/IEC/IEEE 29119-1:2013, ISO/IEC/IEEE 29119-2:2013 and ISO/IEC/IEEE 29119-3:2013.⁸

Crisis Management Procedures

59. Should basic crisis management procedures be standardized across market participants? If so, what elements should be addressed in an industry-wide standard?

AIMA supports the implementation of robust crisis management provisions by all market participants, such that markets remain as stable as possible in all conditions.

AIMA would be concerned, however, if any industry-wide standard entailed overly prescriptive procedures that could prove unsuitable and potentially restrictive for certain ATs. Our position in all situations of ATs standardisation is that such standardisation is beneficial only if the technology for which the standardised processes are to apply are similar. As we describe above, this is not the case for ATs, which are diverse and apply a broad range of incredibly complex technology.

We would, nonetheless, support an industry-wide standard for crisis management in the form of CFTC principles. Relevant CFTC provisions, for example, are already in place for registered Commodity Pool Operators and Commodity Trading Advisers which are required to have in place business continuity procedures.

60. Are there specific, core requirements that should be included in any crisis management procedures? Similarly, are there specific types of crisis events that should be addressed in any crisis management procedures? If so, please identify such requirements and/or crisis events and the level of granularity or specificity that the procedures should have with respect to each.

AIMA believes that the correct structure of fall back solutions and business continuity plans, in general, depends upon the respective ATs and businesses of each firm.

As above, we would recommend that the CFTC develop a set of core principles through which to guide ATs crisis management. These principles could include, for example, a requirement to have reasonable crisis management procedures tailored to the particular AT(s) operated by the firm which ensure that significant events are escalated to management and/or the board of the firm. AIMA would be pleased to contribute to the development of such standards.

Self-Certification and Clearing Firm Certification

61. How often should a market participant certify that their pre-trade risk controls, post-trade reports and other measures, and system safeguards meet the necessary standards?

AIMA members believe that additional certification is not necessary here and could merely create extra administrative costs for firms and the CFTC. Firms are obliged to meet regulatory requirements and to test such procedures as a part of their internal control programs.

We believe that the CFTC should have the ability to check individual firms to ensure that they are compliant.

⁸ www.ieee.org



64. Should DCMs, SEFs or clearing member firms be required to audit market participant certifications? What would be covered in an audit and how often should these audits occur? Should the same entity that receives the certification be required to perform the audit?

DCM and SEFs generally have the right already today to audit the trading procedures of their members

Risk Event Notification Requirements

65. Do commenters believe that risk event notifications would help to better understand and ultimately reduce sources of risk in automated trading environments? What information should be contained in a risk event notification to maximize its value?

We believe that, in principle, yes. However, there is no way of effectively enforcing error reporting at firm level.

ATS or Algorithm Identification

68. Should the Commission define ATS or algorithm for purposes of any ATS identification system that may arise from this Concept Release? If so, how should ATS or algorithm be defined? Should a separate designation be reserved for high frequency trading algorithms and if so, what is the threshold difference?

AIMA has no issue with ATS being defined so as to enable each ATS to be designated with an identifier which characterises it as such. Likewise, we do not oppose a further identifier being given to HFT based on the metrics of past trading activity described above.

We agree that a system of identifiers may be feasible and potentially of use to the CFTC, but only when limited to a yes/no demarcation of an ATS or HFT participant. Other proposals in the EU, for example Germany, have attempted to go further and introduce additional granularity.⁹ In practice, the latter would be disproportionately difficult and costly to implement when compared with the small supervisory benefit that may be obtained, if any.

We, nonetheless, stress that AIMA would only support such an identifier only so long as valuable proprietary information is guaranteed confidentiality and market participants are not able to utilise the identifier to gain an artificial competitive advantage by reverse engineering competitors' strategies and trading against them.

69. What are the existing practices within trading firms for internally identifying ATSs or algorithms and for tracking their performance, including profit and loss? What elements of existing practices could be leveraged in any ATS or algorithm identification system proposed by the Commission in the future?

AIMA's members do not communicate the profit and loss of any individual models to external parties. They would, therefore, not agree to the disclosure of details regarding the tracking of underlying trading models, including profit and loss, beyond an identifier to each trading instance which generates orders to a DCM or FCM.

70. The Commission understands that an ATS may consist of numerous algorithms, each of which contributes to a trading decision. If an algorithm-based identification system is proposed, which of the potentially multiple algorithms that constitute an ATS should carry the ID? In addition, what degree of change to an algorithm should necessitate the use of a new ID, and how often does this change

⁹ For example, MiFID II has proposed an algorithm flagging system requiring the identification of orders generated by an ATS, the algorithms responsible and the relevant person at the trading firm who undertakes decision-making available at: http://www.esma.europa.eu/system/files/esma_2012_122_en.pdf.



typically occur? What is the appropriate definition of “algorithm” for purposes of an algorithm identification system?

AIMA considers that each trading instance could be given an ID i.e., each session trading with a DCM or FCM. We do not consider that any further information need be required, for example, regarding the models generating the meta orders for such trading sessions. Indeed, market orders may result from many trading models.

Indeed, it is the case that no trading algorithm exists in reality until a trade is placed. This is the case regardless of how many stages of calculations, parallel or sequential, occur. Any ID other than on the trade placing component would, therefore, be meaningless.

71. If the identification system resides at the ATS level, how should such IDs be structured to ensure that they are nonetheless sufficiently granular to identify components that may be leading or have led to unstable market conditions?

See Q.70, above. We would not see any added value arising from this information.

72. What messaging traffic between an ATS and a trading platform should include the ATS or algorithm ID (all messages, orders only, etc.)?

Only orders should include the relevant ID, see our answer to Q.70.

73. What relationship should this ATS ID have to the legal entity identifier (LEI)?

It is important that the ATS ID should not be available to the broader market, rather it should be used for supervisory purposes only. It should be in place in addition to the LEI.

Data Reasonability checks

75. The Commission requests comment regarding any risk controls, including reasonability checks, currently being used by market participants operating ATSS to review market data and news and information providers, including social media. Please describe the risk control, including the purpose of the control, the extent of its use among derivatives market participants, and any other aspects of the risk control that you believe would be helpful for the Commission to understand.

Trading firms make significant investments in ensuring the integrity of the data fed to their trading models. It is not in the firm’s interest to use erroneous information as this could lead to direct losses and concomitant reputational damage. Market incentives, therefore, are mutually beneficial to the regulatory aim. The use of such data among reputable buy-side participants should not be a concern of the CFTC.

It is our opinion that the CFTC should be more concerned with the data on orders generated by the ATSS. In particular, ensuring that DCMs have appropriate systems, resources and procedures in place to generate high quality data feeds.

76. The Commission requests public comment concerning the lock-up process for government economic reports, and any additional measures that might be taken to protect against inappropriate disclosure.

AIMA believes that data should be distributed to the market place in a non-discriminatory fashion, such that paid-for pre-disclosure of official government economic reports should not be supported. To undertake selective disclosure of such fundamental information is not appropriate, in the same way as the selective



dissemination of non-public material information by individual companies in the equity securities sphere is not acceptable.

Registration of Firms Operating ATs

78. Should firms operating ATs in CFTC-regulated markets, but not otherwise registered with the Commission, be required to register with the CFTC? If so, please explain.

AIMA accepts that DMA connected firms should register. However, if trading activity is through a broker, we consider that registration with the DCM should be required only as far as is necessary to enable the DCM to have the buy-side firm's identity and be able to distribute applicable identifiers.

79. Please identify the firm characteristics, trading practices, or technologies that could be used to trigger a registration requirement.

As alluded to above, we consider that registration should be based on type of market access, i.e., DMA versus broker. An alternative metric, nonetheless, could be volume of trading.

80. Should all firms deploying ATs be required to register, and should there be different standards for firms deploying HFT strategies? What are the appropriate thresholds levels below which registration would not be required?

AIMA does not support a distinct registration category for firms implementing HFT strategies. Despite the progress in technology, we do not believe that this has created a new class of participant for which an additional registration category would be useful. We stress that all participants that engage in HFT should be registered already as commodity pool operators and/or commodity trading advisors and provide extensive information on their trading positions to the CFTC on a quarterly basis. We do not see how registration would provide any additional benefit to the CFTC.

82. Should software firms providing algorithms be required to register, and under what authority? What standards should apply to such firms?

AIMA does not believe that software firms should be required to register.

86. Considering the broad deployment of automated trading systems across both equities and derivatives markets, the Commission seeks to understand the appropriate level of coordination between itself and the SEC in defining and applying possible standards to the ATs and HFT trading space. How closely should the CFTC and SEC coordinate on possible rules and requirements for trading firms? The Commission also seeks public comment on the appropriate level of coordinated oversight between itself and relevant Self-Regulatory Organizations such as National Futures Association and FINRA.

As we mention in the covering letter, AIMA would urge the CFTC to work closely with other G20 regulators globally, as well as the SEC, to ensure that national regimes are harmonised to the greatest degree possible, thus maximising regulatory efficacy whilst minimising negative impacts upon global derivatives markets and compliance complexity of relevant entities.

92. Are there additional market quality metrics that the Commission should contemplate requiring exchanges to provide? If so, what value would they provide and how would they be used?

AIMA believes that a market quality indicator could be the provision of appropriate timestamps from an order to buy-side participants.



In periods of high volatility or market stress, especially, AIMA members are concerned that the status of executions often remains unclear. This is the case, in particular, for trading undertaken via an executing broker.

Market Quality Incentives

96. Should exchanges impose a minimum time period for which orders must remain on the order book before they can be withdrawn? If so, should this minimum resting time requirement apply to orders of all sizes or be restricted to orders smaller than a specific threshold? If there should be a specific threshold, how should that threshold be determined?

AIMA strongly objects to the imposition of minimum order resting times. Such measures are not the correct approach to ensure more orderly markets and would likely prove counterproductive through numerous opportunities for gaming.

By forcing orders to sit for a specified period, this would open up such order to the possibility that HFT ATS could pick-off these orders after the 500ms period has expired, but before they are able to be cancelled. Such could open the possibility for arbitrage. Such a blunt rule would also prevent legitimate cancellation of an order within such a time for entirely honest and non-abusive reasons.

AIMA supports incentives to ensure that 'real' liquidity is present in the US futures markets. However, minimum order resting times are not the appropriate means through which to meet these ends.

We highlight that MiFID II negotiations within the EU are highly likely to reject the proposed imposition of minimum order resting times. To unilaterally implement such a rule in the US without corresponding rules in other key jurisdictions for derivatives trading could have significant negative consequences for US markets.

110. Are any of the risk controls unnecessary, impractical for commercial or technological reasons, or inadvisable? If so, please note the control and provide reasons why.

As we explain above, we believe that pre-trade credit checks and margin calculations, as well as mandatory order cancellation for instances of self-trading, would be both technologically impractical and commercially unnecessary.

115. To the extent that there is any need to standardize or provide greater specificity regarding any measures discussed in this Concept Release, including those that reflect industry best practices, please describe the best approach to achieve such standardization (*i.e.*, through Commission regulation, Commission sponsored committee or working group, or some other method).

AIMA believe that it would be highly beneficial for the marketplace for the CFTC to define a standardised API for communicating maximum order sizes and throttle risk limits pre-trade as well as monitoring that such controls are in place, including any relevant alarms.

116. How should risk control monitoring be implemented? Should compliance be audited by internal and external parties? For each control, please identify the appropriate entity(ies) to monitor compliance with the control. Also, please describe what an acceptable compliance audit would entail for each control.

AIMA does not believe that auditing by external parties is necessary for buy-side firms' risk controls. The compliance function, for example, is already a central part of risk management for our member firms and within a sound risk management structure there is already redundancy in place.



Fundamentally, external audit companies do not have the long-term knowledge and experience of the individual buy-side firm that an internal compliance manager within the firm will have. We do not believe that external companies have proven any more effective at detecting issues. Also, the cost of such audits would be prohibitively high, thus would also increase barriers to entry for smaller participants and impact negatively on competition within the relevant markets. This would be the case despite the fact that smaller firms may well be highly specialized and understand all attributes of their businesses even better than large and complex companies which operate in numerous markets in furtherance of a variety of strategies.