



ESMA's Consultation Paper: Guidelines on Systems and Controls in a highly automated trading environment for trading platforms, investment firms and competent authorities

A response paper by the Futures and Options Association

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1. Background & Summary

- 1.1 The FOA is the industry association for more than 160 firms and institutions which engage in derivatives business, particularly in relation to exchange-traded transactions, and whose membership includes banks, brokerage houses and other financial institutions, commodity trade houses, power and energy companies, exchanges and clearing houses, as well as a number of firms and organisations supplying services into the futures and options sector (see Appendix 1).
- 1.2 Overall, the FOA is very supportive of ESMA's proposed guidelines (the CP). In particular, we welcome the paragraph on page 36 regarding "*Control over SA*" (sponsored access). We would encourage ESMA to further differentiate between DMA and SA in the guidelines, given the risk profiles associated with these types of access are different for both firms and the broader market.
- 1.3 We appreciate the extensive work and public consultation undertaken by ESMA, which have resulted in a thoughtful set of guidelines. In fact, we believe that ESMA's guidance would be even more effective if ESMA did not focus on developing a precise definition of "*high frequency trading*" and other specific electronic trading strategies so that guidance can be applied generically. Instead we suggest that the market is best viewed holistically, as a highly automated trading environment in need of best practise guidance. We believe that the focus should be on providing guidance to a) reduce operational risk in a highly automated environment and b) to strengthen controls and surveillance tools at a time when the change in trading patterns (e.g. higher frequency, smaller average order size) is challenging traditional market surveillance processes and tools.
- 1.4 We appreciate the need for further regulatory attention to trading in a highly automated environment and understand ESMA's keenness to address this issue to the extent it can now. However, we wish to emphasise that the importance of allowing the industry an appropriate transitional period to implement the requirements, given the potential technical and operational modifications that may be necessary. We would be happy to engage further with you on this point.
- 1.5 Whilst we support ESMA's approach in setting out high level guidelines and believe they are pitched at broadly the right level, particularly to facilitate flexible and proportionate application, we have a number of concerns in several areas regarding the CP, which are set out in paragraphs 1.5-1.10 below.
- 1.6 We are concerned about the implied approach for tackling a flash-crash type scenario due to a rapid withdrawal of liquidity from the market, which focuses specifically on algorithms. The CP refers to "*ensuring that an algorithm can continue to work effectively in stressed market conditions*" (page 17), and "*not letting an algorithm exit all positions simultaneously*" (page 19). The former could refer to the technical capability and resiliency of the platform the algorithm is running on; the latter could be very dangerous

as generally algorithms are designed to halt activity when they get into a distressed status, or simply pull all orders from the market when the set of parameters used by the user of that algo receive a signal (e.g. “market too volatile”, “maximum daily position allowed to this trading desk reached” or simply “done for the day, pull all working orders”). This would generally happen if the algo’s parameters move ‘out of bounds’ and as such either there is a problem with the algo itself or there is a dislocation or disorderly market. In both cases, leaving an algo working in any way could exacerbate the problem, so it makes much more sense for it to shut-down and withdraw immediately from the market. The aim here should be on preventing a disorderly market in the first place. Therefore, ESMA’s focus should be to provide guidance for conformance testing and (when the legislation permits) for the operation of circuit breakers. Different algorithms have different tolerance levels, dependent on their strategy and therefore different triggers with regard to when they would exit immediately the market in stressed conditions. It is not appropriate or realistic to mandate that firms continue to trade purely for the benefit of the market, noting that whilst some will exit, for others it would not be commercially viable to withdraw. We are of the view, therefore, that requiring firms to immediately withdraw or continue in a market in stressed conditions fundamentally misunderstands the nature of algorithmic trading, which does not proceed on a consistent basis, and that where there are serious concerns, the most effective response will be for the trading venue to operate circuit breakers on all trading across the market.

- 1.7 There are other mechanisms that are already available to ensure that liquidity does not disappear altogether during periods of high activity or volatility, including exchanges’ designated market making schemes, which are well tried and tested and have been in use for many years. We believe the most effective way to provide continued liquidity is by exchanges continuing to incentivise market making firms (including those that are now fully automated) so that there is a commercial rather than a forced impetus.
- 1.8 With respect to the resilience of trading venues, there is discussion on page 15 of the CP that *“in the event that the volume of messaging threatens to reach capacity limits trading platforms should have the processes to ensure that capacity limits are not breached by controlling the volume of messages that individual members/participants or users can send”*. In our view, these throttle limits should be pre-defined, transparent and certain (i.e. the member obtains connections with a specified bandwidth in terms of maximum messages per second). However, if the approach proposed is based on dynamic throttling or queuing (i.e. if the exchange is busy the messages per second on a connection are throttled back), this could create or exacerbate a disorderly market by creating uncertainty about the execution of individual orders. Consequently, in times of market overload it would be better to take a circuit breaker approach and halt the market and then re-start the market in an orderly manner to prevent the sudden withdrawal of liquidity.
- 1.9 With regard to the general record keeping obligations, set out for each of the guidelines, we would strongly encourage ESMA to carry out cost-benefit analysis prior to introducing more detailed requirements and highlight the need for record keeping rules to be consistent to ensure clarity for systems designers and to ensure a level playing field in implementation.

- 1.10 As a final general point, we wholly support the statement in paragraph 21 on page 13 of the CP that *“for both trading platforms and investment firms the systems and controls employed will need to be effective and proportionate to the nature, scale and complexity of their business”*. Additional guidance on what this means in practice is necessary, in our view.

2. Responses to Questions

Q1: Do you agree with ESMA that it is appropriate to introduce guidelines already before the review of MiFID covering organisational arrangements for trading platforms and investment firms in relation to highly automated trading, including the provision of DMA/SA?

- 2.1 The FOA agrees that there is a need for attention in this area now, and that the changes to legislation through the review of MiFID are unlikely to be implemented before 2013. We would, however, urge ESMA to coordinate its work with the European Commission to ensure any changes to these guidelines following the review of MiFID and MAD are kept to a minimum. As we note above, we would also request that ESMA provide the industry with a transitional period to fully implement these requirements, given the system and operation modifications this will entail.

Q2: Do you think that the draft guidelines adequately capture all the relevant points relating to the operation of trading platforms' electronic trading systems?

- 2.2 We believe these requirements cover the key points, although we have a number of comments. As we have explained in paragraph 1.8 above, we would be concerned if trading platforms were to unexpectedly invoke a dynamic throttling or queuing approach to control the volume of messages that individual members/participants can send. To be clear, we are not against the use of processes to ensure that capacity limits are not reached, but throttle limits should be clearly defined and certain in impact (i.e. a member obtains connections with a specified bandwidth in terms of maximum messages per second) in plentiful advance of their implementation. It is still unclear how all platforms can even-handedly apply a data rate restriction in times of market stress, and during such an event the holding of orders in a queue can be damaging to market integrity and the price formation process. We therefore believe that the use of order throttling at times of volatility or high market activity is suboptimal and that it is better to follow a circuit breaker approach where trading is halted for all participants.
- 2.3 Further, the FOA believes that ESMA should focus particular attention on the way platforms establish their maximum capacity limits during normal activities. The fact-finding reported by ESMA on page 15 of the CP indicates that platforms assess performance capacity using a multiple of 20 times the order flow derived from the busiest trading days. However, there appears to be no consistent approach to measuring this order flow over the busiest days. We suggest that a better approach would be to assess peak intra-day load over a suitably sized time period (for example in 30 second blocks) for capacity planning.
- 2.4 We also suggest that all platforms should provide cost-effective conformance/user-acceptance testing environments, allowing participants to meaningfully test systems at

the venue in order to have a safe and controlled electronic trading system release process.

Q3: *Are there areas where it would be helpful to have more detail on the organisational requirements applying to trading platforms' electronic trading systems?*

2.5 Please see our response to Q2 above.

Q4: *Do you have additional comments on the draft guidelines on organisational requirements for trading platforms' electronic trading systems?*

2.6 We believe it would be helpful to establish a framework for a clear and consistent application of rules across trading platforms. More consistency is needed regarding acceptable trading practises, membership requirements, and complaints procedures, to provide some examples. We note also that some MTFs have very lengthy rule books, while others' are very short. The size of a market's rule book is not a proxy for its quality and we have noted that many markets' rulebooks lack essential clarity.

2.7 In anticipation of dealing with volatile or disrupted markets we believe that all markets must be precise and unambiguous in writing rules that describe when, and in what circumstances, trades will be "busted" by the market after they have been executed and confirmed. The lack of such certainty is a major contributor to the fears of liquidity providers of remaining active (and continuing to provide liquidity for the general good of the market) during volatile periods.

Q5: *Do you think that the draft guidelines adequately capture all the relevant points related to the operation of trading algorithms?*

2.8 The FOA agrees with ESMA that firms should have robust pre-trade risk controls and testing processes in place with respect to algorithms. With these processes in place, it is unclear to us why the ESMA guidelines would need to be as prescriptive as what is contemplated on page 19 of the CP, where it is stated that "*the algorithm cannot be used for other trading strategies than it is intended to be used and signed off for*". This does not appear to fit within the general approach of the guidelines and leans towards the registration of algos with regulators and regulators "signing off" with respect to their use. Similarly, the requirement on page 19 with respect to firms keeping adequate records explaining the trading strategy of each algorithm deployed does not appear to be practical, nor is it consistent with an approach where firms' controls and testing processes are the key areas of focus to ensuring orderly and resilient markets.

Please also see our comments in paragraph 1.3 above.

Q6: *Are there areas where it would be helpful to have more detail in the guidelines applying to the organisational requirements for investment firms' electronic trading systems?*

2.9 Please see our response to Q5.

Q7: *Do you have additional comments on the draft guidelines relating to organisational requirements for investment firms' electronic trading systems?*

2.10 Please see our response to Q5.

Q8: *Do the draft guidelines on organisational requirements for trading platforms to promote fair and orderly trading offer a sufficiently comprehensive list of the necessary controls on order entry?*

2.11 We believe that this comprises a comprehensive list, and in particular we strongly support the guideline that regulated markets and MTFs have minimum requirements for members' and participants' pre- and post-trade controls, as stated in the last paragraph on page 20 of the CP, and the requirement that trading platforms have circuit breakers, as described on page 22. We also believe that it should be mandatory for markets to ensure that any automated system or trading software that connects to the market complies with all applicable exchange rules, including the capability within the software to support pre-trade risk filters.

2.12 With respect to the issue of "Controls" on page 21 of the CP, we do not think it is made sufficiently clear how trading platforms are to determine which orders "*appear to be erroneous*". Transparent and clear criteria should be provided with respect to the erroneous trade policy of each trading venue. Participants need certainty on whether trades executed in a volatile market will stand or will be broken and in what circumstances. We believe this certainty would encourage market makers to continue to provide liquidity during volatile and high volume market conditions.

Q9: *Are there any areas of the draft guidelines on organisational requirements for trading platforms to promote fair and orderly trading where you believe it would be helpful to have more detail?*

2.13 We believe it would be helpful to have more detail on the guidelines in several areas. One area is with respect to "*the ability to prevent in whole or in part the access of a member or participant to the trading facility and to cancel, amend or correct a transaction;*" This is related to our comments in paragraph 2.7 above regarding the need for clear and transparent erroneous trade policies. We would also welcome clarification on what is meant by requirements "*governing the knowledge of employees of members/participants or users' who enter orders into their systems*". More detail on how this would work in practice would help.

Q10: *Do you have additional comments on the draft guidelines on organisational requirements for trading platforms to promote fair and orderly trading?*

2.14 We do not agree that regulated markets and MTFs should have "*arrangements to prevent capacity limits from being breached through a mechanism for slowing down order flow from members/participants and users which restricts the number of messages of any individual member/participant or user within a set timeframe in the event that there is a danger of capacity limits being reached*". We believe that message traffic is an area that is best left to commercial forces, and many exchanges have technical or price-based measures in place to limit order-to-trade ratios based on their infrastructure capacity. One example of an effective approach to curtailing superfluous bandwidth usage is Intercontinental Exchange's "Weighed Volume Ratio" messaging rule.

Q11: Do the draft guidelines on organisational requirements for investment firms to promote fair and orderly trading offer a sufficiently comprehensive list of the necessary controls on order entry?

2.15 We believe that the draft guidelines comprise a comprehensive list of relevant topics, with our further comments below.

Q12: Are there any areas of the draft guidelines on organisational requirements for investment firms to promote fair and orderly trading where you believe it would be helpful to have more detail?

2.16 We have some significant concerns with respect to what is meant by the guideline on page 23 of the CP that firms should automatically block or cancel orders “*if the client does not have adequate funds or holdings of, or access to, the relevant financial instrument to complete the transaction*”. The implications of this requirement are potentially quite significant and not clear. As ESMA is no doubt aware, no individual firm can ensure beyond any doubt that a client holds adequate funds at any given time. A firm can only seek to ensure its clients do not breach their credit or risk limits with that specific firm. The FOA agrees that firms should build checks into their automated systems that prevent the entry of orders that exceed pre-set credit or capital thresholds for clients, or that breach risk limits for individual traders, desks or the firm as a whole. However, the guidelines should allow for flexibility in how firms tailor these limits to their business models, and should take into account current business practices which are effective in achieving the main objective of risk management.

Q13: Do you have additional comments on the draft guidelines on organisational requirements for investment firms to promote fair and orderly trading?

2.17 With respect to the detailed guideline in paragraph 3, at the top of page 24 of the CP, we question whether the word “*overridden*” should instead be “*challenged*”. Equally, we would suggest that it may not be appropriate to obtain compliance and risk management pre-approval in all instances. For example, if a control is being challenged under the direction of compliance, it may not be appropriate or relevant to also obtain risk management approval before taking the action.

2.18 We would also add that in detailed guideline 4 on page 24, the reference to the employees of a firm involved in order entry having adequate training should also extend to those individuals within the client’s business who are involved in order entry, if the firm is providing direct market access or sponsored access. We recognise the importance of ensuring adequate oversight of a firm’s order information but note that in some cases this mechanism may be better situated within another control area or within the business, with compliance performing review and monitoring. Therefore, we suggest the guideline does not prescribe that it is compliance staff which must receive a feed of the firm’s orders in as close to real time as possible, in recognition of the importance of matching the risks with the appropriate skill-sets.

Q14: Are there any areas of the draft guidelines for trading platforms on organisational requirements for regulated markets and MTFs to prevent market manipulation where it would be useful to have extra detail?

2.19 No.

Q15: Do you have additional comments on the draft guidelines on organisational requirements for RMs and MTFs to prevent market manipulation?

2.20 The FOA agrees with ESMA's view that automated trading presents additional challenges in terms of the detection of market abuse. In our view it is appropriate, therefore, for trading venues to have monitoring processes in place, since they will have a view of all trading undertaken on their venue. We also highlight the critical role of competent authorities in detecting market abuse due to the fact that they have the ability to look at activity across all trading venues.

2.21 The FOA also believes that it is of critical importance that trading venues make available sufficient and timely data on orders, executions and market conditions to enable firms to perform their own monitoring. While we appreciate that venues will want to recover their costs in providing this data to firms, we believe that ESMA should emphasise that this should not be regarded as a revenue generating opportunity by venues, given the importance of market abuse detection.

Q16: Are there any areas of the draft guidelines on organisational requirements to deal with market manipulation for investment firms where you believe it would be helpful to have more detail?

2.22 It would be helpful to have further detail in this area, but we believe it would be better placed within the market abuse legislation.

Q17: Do you have additional comments on the draft guidelines relating to organisational requirements to deal with market manipulation for investment firms?

2.23 The FOA believes that all investment firms (whether in a highly automated environment or not) should have policies and procedures reasonably designed to minimise the risk that their activities give rise to market abuse. We would note however that broadening monitoring activities will likely necessitate changes to systems, and that firms will require a reasonable timescale for implementation.

Q18: Do the draft guidelines on organisational requirements for trading platforms whose members/participants or users offer DMA/SA deal adequately with the differences between DMA and SA?

2.24 Yes.

Q19: Are there any areas of the draft guidelines on organisational requirements for trading platforms whose members/participants or users offer DMA/SA where you believe it would be helpful to have more detail?

2.25 With respect to the explanatory note at the top of page 36 of the CP regarding "Obligations of members/participants and users", the FOA believes further detail is needed regarding the statement that "ESMA believes it should be in the commercial and reputational interests of trading platforms to be able to carry out where necessary a review of members/participants or users' internal risk control systems". In our view,

undertaking this activity often conflicts with the commercial interests of platforms so we would like to better understand how ESMA will promote this going forward.

Q20: Do you have additional comments on the draft guidelines relating to organisational requirements for trading platforms whose members/participants or users provide DMA/SA?

2.26 We are very supportive in particular of the paragraph on page 36 of the CP regarding 'Control over SA [sponsored access]' in the explanatory notes. We would encourage ESMA to further differentiate between DMA and SA in the guidelines, given the risk profiles associated with these types of access are different for both firms and the broader market; consequently, the systems and controls around SA should be commensurate with the potential higher risk this activity presents.

Q21: Do the draft guidelines on organisational requirements for investment firms providing DMA/SA deal adequately with the differences between DMA and SA?

2.27 Yes.

Q22: Are there any areas of the draft guidelines on organisational requirements for investment firms providing DMA/SA where you believe it would be helpful to have more detail?

2.28 ESMA's Guideline 8 (on page 37 of the CP) states that an investment firm's policies and procedures should, among other things, include "an assessment, periodically reviewed, of the trading activities of direct market access/sponsored access clients to assess the potential market wide impact of the orders that are likely to be sent to the relevant [trading platform]." In our view this requirement is too vague. It is unclear what trading activity could be considered to have a "potential market wide impact" and what assessment is supposed to be made by an investment firm of such undefined impact. In principle, all orders have a market-wide impact, as they contribute to price discovery. It is also unclear what ESMA expects firms to do with the conclusions of such a review should it be carried out.

Q23: Do you believe that there is sufficient consistency between the draft guidelines on organisational requirements for investment firms providing DMA/SA and the SEC's Rule 15c3-5 to provide an effective framework for tackling relevant risks in crossborder activity and without imposing excessive costs on groups active in both the EEA and the US?

2.29 Yes.

Q24: Do you have additional comments on the draft guidelines on organisational requirements for investment firms providing DMA/SA?

2.30 No.

Q25: Does the explanatory text provided in addition to the guidelines (see Annex VII to this CP) help market participants to better understand the purpose and meaning of the guidelines? Should it therefore be retained in the final set of guidelines?

2.31 We agree that retaining the explanatory text in the guidelines is helpful.

LIST OF FOA MEMBERS

FINANCIAL INSTITUTIONS

ABN AMRO Clearing Bank N.V.
 ADM Investor Services International Ltd
 Altura Markets S.A./S.V
 Ambrian Commodities Ltd
 AMT Futures Limited
 Bache Commodities Limited
 Banco Santander
 Bank of America Merrill Lynch
 Banca IMI S.p.A.
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