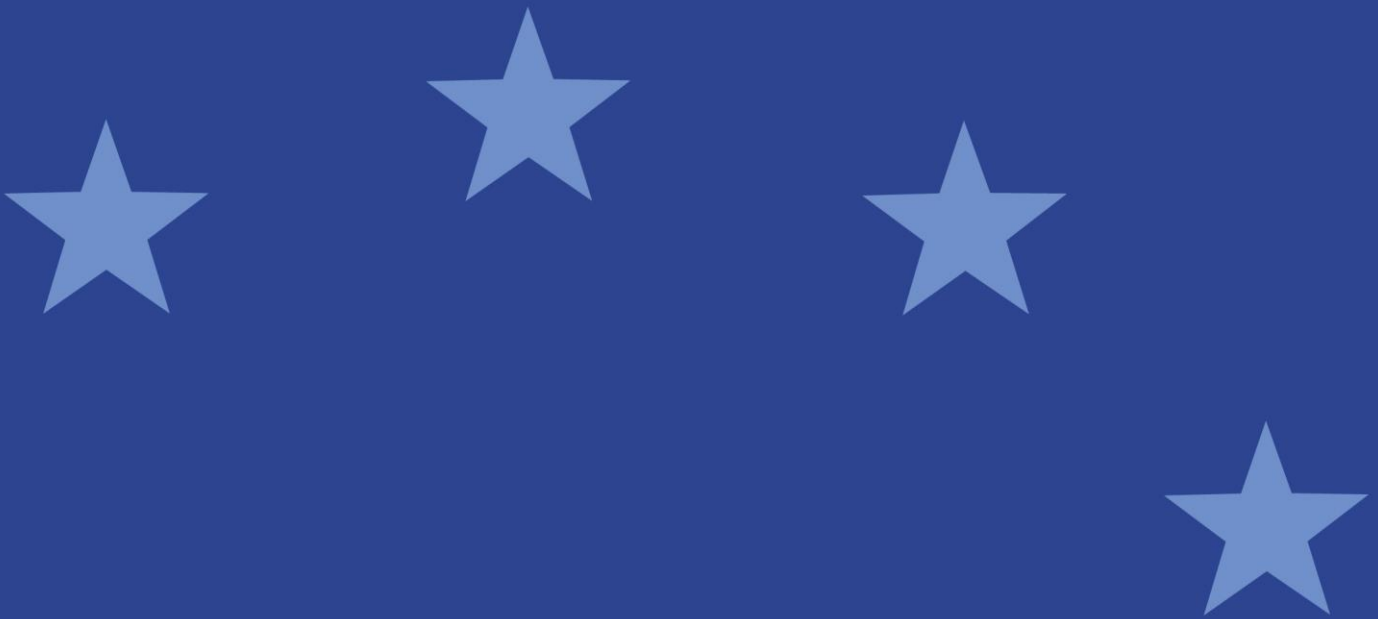![esma logo] European Securities and Markets Authority

Reply form for the Consultation Paper on the Algorithim Trading

Responding to this paper

ESMA invites comments on all matters in this consultation paper and in particular on the specific questions summarised in Annex I. Comments are most helpful if they:

- respond to the question stated;

- indicate the specific question to which the comment relates;

- contain a clear rationale; and

- describe any alternatives ESMA should consider.

ESMA will consider all comments received by **12/03/2021.**

All contributions should be submitted online at www.esma.europa.eu under the heading 'Your input - Consultations'.

Instructions

In order to facilitate analysis of responses to the Consultation Paper, respondents are requested to follow the below steps when preparing and submitting their response:

1. Insert your responses to the questions in the Consultation Paper in the present response form.

2. Please do not remove tags of the type <ESMA_QUESTION_ALGO_1>. Your response to each question has to be framed by the two tags corresponding to the question.

3. If you do not wish to respond to a given question, please do not delete it but simply leave the text "TYPE YOUR TEXT HERE" between the tags.

4. When you have drafted your response, name your response form according to the following convention: ESMA_ALGO_nameofrespondent_RESPONSEFORM. For example, for a respondent named ABCD, the response form would be entitled ESMA_FOTF_ABCD_RESPONSEFORM.

5. Upload the form containing your responses, in Word format, to ESMA's website (www.esma.europa.eu under the heading "Your input – Open consultations" → "Consultation on Algorithmic Trading").

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publically disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with ESMA's rules on access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by ESMA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.esma.europa.eu under the heading Legal Notice.

Who should read this paper

This document will be of interest to (i) alternative investment fund managers, UCITS management companies, EUSEF managers and/or EuVECA managers and their trade associations, (ii) distributors of UCITS, alternative investment funds, EuSEFs and EuVECAs, as well as (iii) institutional and retail investors investing into UCITS, alternative investment funds, EuSEFs and/or EuVECAs and their associations..

General information about respondent

Name of the company / organisation	BlackRock
Activity	Investment Services
Are you representing an association?	☐
Country/Region	Europe

Introduction

Please make your introductory comments below, if any

<ESMA_COMMENT_ALGO_1>

BlackRock supports a regulatory regime that increases transparency, protects investors, and facilitates responsible growth of capital markets while preserving consumer choice and assessing benefits versus implementation costs. We therefore welcome the opportunity to comment on ESMA's consultation regarding algorithmic trading. A summary of our response follows.

Overall, we believe that the MiFID II framework covering algorithmic trading, high-frequency trading, and Direct Electronic Access has proven effective and has been designed in a way that has been able to accommodate ongoing developments in market microstructure and trading practices. Accordingly, we urge against major changes to the framework as it operates today.

The existing regulations appropriately address the risks pertinent to algorithmic trading, and therefore we do not believe the scope of the regulation should be extended to other trading venue types nor other types of investors. For example, an extension of the requirements to Over-the-Counter or less electronic markets - such as OTC derivatives - would overlook the fact that they generally operate bilaterally and with lower overall use of technology. As ESMA notes, the risks arising from algorithmic trading stem from the potential for trading systems operating in multilateral networks to overload systems, duplicate or mis-specify orders, or overreact to market events; risks which do not feature in OTC trading arrangements. Similarly, we believe the obligation for entities to register as investment firms within this regulatory framework should be proportionate to the risks involved.

That said, we agree with ESMA's suggestion that market participants may define 'algorithmic trading' too broadly, and that additional clarification on the framework via Q&A would be beneficial. We see particular need for more precise definitions of 'algorithm manufacturer'

and 'algorithm user', to ensure the responsibilities of each are defined properly: manufacturers own algorithm source codes and test environments, and therefore the obligation to ensure rigorous testing and controls properly rests with them. Algorithm users do not have access to the code nor the environments, meaning their responsibilities should extend to proper due diligence and governance of solutions they use. Algorithm manufacturers can support users in their due diligence by making appropriate user guidelines available in a timely manner as and when new iterations or versions are released.

ESMA also raises several interrelated issues around the use of circuit breakers; trading venue resilience; tick sizes; and 'speed bumps' - where we see scope for amendments to the MiFID framework that could enhance the overall quality and coherence of EU financial markets. While MiFID II addressed the provision of market resilience controls, such as circuit breakers, across European trading venues, it importantly did not specify the exact mechanisms required or minimum standards for them. The fragmented nature of the European trading ecosystem has in turn led to a wide variety of approaches to volatility controls. This leaves room for confusion and disruption, especially where the same security is traded across multiple venues. Further, many venues rely on manual interventions to manage volatility events, and the price thresholds used to trigger an intervention also vary across venues. We believe a harmonized, transparent and automated circuit breaker rule should be applied across trading venues.

ESMA notes several recent exchange outages that had a severe impact on trading. We see the need for a better notification process in case of IT incidents, and an overall improvement in the operational risk management and communication around IT incidents and trading venue outages. The focus should be on better risk management and mechanisms that improve the resiliency of the market, enabling trading to resume in a predictable and swift manner.

We agree with ESMA's assessment that one benefit of the tick size regime has been to reduce venues competing with each other for order flow through economically insignificant improvements in orders – and may have led to a positive stabilization in bid-ask spreads and market depth. That said, the accompanying ban on midpoint crossing imposes unnecessary costs on investors who have a natural order match. A tick size regime that allows crossing to occur at the midpoint would be reduce unnecessary 'tick competition' while retaining the ability for investors to execute without market impact when they meet liquidity that they can cross with. This should then be harmonised across both securities – i.e. to all ETFs – and across all venues – including Request for Quote platforms.

Finally, the innovation of 'speedbumps' has generally been beneficial as a tool for managing and mitigating the effects of latency arbitrage. But, as ESMA notes, the introduction of asymmetric speedbumps has increased complexity, and may have a deleterious effect on equity markets while also discriminating against some market participants.

<ESMA_COMMENT_ALGO_1>

Questions

Q1 : What is your overall assessment of the MiFID II framework for algorithmic trading, HFT and DEA?

<ESMA_QUESTION_ALGO_1>
Overall, we believe that the MiFID II framework covering algorithmic trading, HFT and DEA has proved effective and has been designed in a way that has been able to accommodate ongoing developments in market microstructure and trading practices. Accordingly, we urge against major changes to the framework as it operates today, given that significant changes in terms of expected operational practices could themselves lead to the kind of market disruption that MiFID II has been effective in preventing.

It is also worth noting that the organisational requirements applicable to investment firms build on market practices and controls employed well before the go-live of MiFID II. Firms continue to refine their approaches to ensure that they suit their individual trading practices and deployment of algorithmic trading techniques. We do not think that an expansion of the current regulatory scope, for example to OTC markets, nor more prescriptive or standardised testing rules, would reduce risks which can arise from algorithmic trading, HFT or DEA. We recommend against such changes where they do not further mitigate risk yet potentially stifle innovation.

We discuss these observations of MIFID II's framework in more detail in our further answers.
<ESMA_QUESTION_ALGO_1>

Q2 : In your views, are there risks other than the one mentioned in MiFID II or impacts on market structure developments due to market electronification/ algorithmic trading that would deserve further regulatory attention? Please elaborate.

<ESMA_QUESTION_ALGO_2>
As a principle, policy makers should focus on whether European markets are developing in a way that provides fair, non-discriminatory access to all types of market participants. The regulation of electronic markets and algorithmic trading should additionally focus on the mitigation of contagion effects that could arise from the technological nature of these activities.

We believe that the existing regulations as well as ESMA's analysis identifies the relevant risks of algorithmic trading; and that these are well addressed in the existing framework. We do not see any other types of risk associated with market electronification which require further regulatory attention. For that reason, we do not believe that an extension of algorithmic trading requirements to OTC markets or products that trade in a less electronic fashion is necessary. The framework is strongest when it retains its focus on activities that are the heaviest technology users and the most likely areas where technology failures could potentially trigger contagion.
<ESMA_QUESTION_ALGO_2>

Q3 : Do you consider that the potential risks attached to algorithmic trading should also be given consideration in other trading areas? Please elaborate.

<ESMA_QUESTION_ALGO_3>
As discussed in Question 2, we think it is best not to consider algorithmic trading risks in other areas and, instead, be focused on core algorithmic trading where technology usage is the most advanced.

Market structure for bonds and derivatives is not analogous to equities and algorithmic trading in these instruments is markedly different. Although bond prices may be quoted algorithmically, often the completion of a transaction requires a dealer to manually accept the provided bid or offer.

Further, the bilateral nature of electronic trading in these markets means that the risks of contagion, where the impact of technical errors are propagated from one investment firm to another, are largely contained. We note ESMA's previous assessment that the risks arising from algorithmic trading, such as increased risk of the overloading of trading systems, the risk of generating duplicative or erroneous orders and overreaction to market events, are likely to create more detrimental consequences to orderly markets when trading takes place on multilateral systems than with bilateral trading. These risks are, as ESMA suggests, specific to algorithmic trading.

We agree with ESMA's perception that currently market participants draw the definition of electronic trading too widely, so we welcome clarification of what is intended in the Q&A. For further details on this point, see Question 15.
<ESMA_QUESTION_ALGO_3>

Q4 : Do you agree with this analysis? If not, please explain why.

<ESMA_QUESTION_ALGO_4>
We disagree with ESMA's view of DEA clients and see this as a good example where further clarification of the definition of algorithmic trading via Q&A would be useful for market participants.

ESMA notes uncertainty regarding the position of DEA clients vis-à-vis the rules and concludes: "where a DEA client would be using algorithmic trading as defined in MiFID II, that DEA client would fall under the MiFID II algorithmic trading framework.". We disagree with this approach and think it is neither appropriate nor risk-reducing for DEA clients to be included in the requirements of the algorithmic trading framework.

In our view, it would be useful to clarify the concepts of 'algorithm manufacturer' and 'algorithm user' with additional Q&A. An algorithm manufacturer owns the source code of an algorithm, and is therefore obliged to ensure rigorous testing as well as controls that reduce any risks that their technology leads to market-wide disruption.

In contrast, an algorithm user, including a DEA client, will not have insight into the manufacturer's proprietary source code or access to their development and testing environments. Algorithm users should ensure appropriate oversight over their usage of third-party algorithms in line with best execution requirements. Core testing should remain with the manufacturer as only the developer of an algorithm can provide this with the required rigor.

For further detail, see Question 15.

<ESMA_QUESTION_ALGO_4>

Q5 : Did you encounter any specific issue with the definition of HFT? Do you consider that the definition should be amended? Do you have any suggestion to replace the high message intraday rates with other criteria or amend the thresholds currently set in Level 2? Please elaborate and provide data supporting your response where available.

<ESMA_QUESTION_ALGO_5>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_5>

Q6 : Based on your experience, is sub-delegation of DMA access a frequent practice? In which circumstances? Which benefits does it provide to the DEA user and to the sub-delegatees? Are you aware of sub delegation arrangements in the context of Sponsored access? If so, please elaborate.

<ESMA_QUESTION_ALGO_6>
BlackRock is not aware of sub-delegation of DMA being a common practice.
<ESMA_QUESTION_ALGO_6>

Q7 : (for DEA Tier 1clients) Do you sub-delegate direct electronic access? If so, are your Tier 2 clients typically regulated entities/investment firms? Are they EU-based or third country based?

<ESMA_QUESTION_ALGO_7>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_7>

Q8 : Do you agree with this analysis? If not, please explain why. Do you consider that further clarification is needed in this area? If so, what would you suggest?

<ESMA_QUESTION_ALGO_8>
Yes, we agree with the analysis that retail investors should be out of scope. In our view, to provide clarity no DEA user should be considered in scope as none of them have the discretion of timing or are owners of the technology.
<ESMA_QUESTION_ALGO_8>

Q9 : Do you agree with ESMA's proposal? If so, do you consider that the requirements considered above relevant? Should there be additional ones? If you disagree with ESMA's proposal, please explain why.

<ESMA_QUESTION_ALGO_9>
Consistent with our response to Question 3, it is not beneficial to extend the definition of algorithmic trading to OTC trading in financial instruments by key market players, such as Systematic Internalisers.

The risks which arise from algorithmic trading such as system overload, order duplication or runaway processes are more acute for algorithmic activity and multi-lateral venues. Trading

with a Systemic Internaliser does not have the same risks of contagion. The algorithmic trading requirements are therefore not relevant in an SI context.
<ESMA_QUESTION_ALGO_9>

Q10 : Do you agree with ESMA's proposals above? Please elaborate.

<ESMA_QUESTION_ALGO_10>
BlackRock welcomes steps to ensure that the provision of DEA is subject to an appropriate set of requirements that reflect the risks involved. Clients and sub-delegated DEA clients should be treated in the same way.

In line with our response to Question 4, BlackRock also welcomes ESMA's proposal to remove the obligation that DEA clients should be authorised as investment firms. Such an obligation is disproportionate and unnecessary for DEA users. Additionally, we do not think that ESMA's suggestion that third-country firms would need to be authorised as investment firms when they qualify as HFT firms on an EU trading venue is warranted. Rather than a top down approach for the sake of consistency, the focus must be on whether authorisation as an investment firm is necessary from the point of view of maintaining the integrity of EU markets, given the controls that already exist at the level of the trading venue and market participant.

Whilst BlackRock is not directly impacted by the provisions relating to HFT, we are keen to ensure that the European market remains attractive for such firms to provide their services, connecting buyers and sellers and providing price formation.
<ESMA_QUESTION_ALGO_10>

Q11 : Do you agree with ESMA's proposal? Please elaborate.

<ESMA_QUESTION_ALGO_11>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_11>

Q12 : Do you see merit in ESMA developing a template for notifications to NCAs under Articles 17(2) and 17(5) of MiFID II? If not, please justify your position.

<ESMA_QUESTION_ALGO_12>
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<ESMA_QUESTION_ALGO_12>

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Q13 : Do you agree that it would be useful to clarify that notifications should be done 'without undue delay'?

<ESMA_QUESTION_ALGO_13>
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<ESMA_QUESTION_ALGO_13>

Q14   : Do you agree with ESMA's approach for the exchange of information between NCAs? If not, please justify your position.

<ESMA_QUESTION_ALGO_14>
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<ESMA_QUESTION_ALGO_14>

Q15   : What is your view on clarifying the definition of algorithmic trading? If you deem it beneficial to refine the definition and account for further types of algorithms or algorithmic trading strategies, please provide your suggestion as well as underlying rationale.

<ESMA_QUESTION_ALGO_15>
As discussed in previous answers, we think that the MIFID II algorithmic trading framework has been successful and is well calibrated.

We do not think it is beneficial to extend the scope of the framework to activities which are less technology-driven and have far less risk of causing market disruption. However, limited clarification – perhaps via ESMA Q&A – of the algorithmic trading definition would be beneficial. We agree with ESMA's perception that market participants currently draw the boundary of electronic and algorithmic trading too widely. We would welcome further clarification to ensure sure that market participants limit the application of algorithmic trading regulation to those processes that ESMA intends to be captured. Too broad a definition means workflow automation with lower risk profiles will be captured.

We suggest that ESMA clarifies the regulatory intent of the requirements, focusing on the objective of contagion which can arise from technology failures. Such market disruption is the most likely to occur when an algorithm has the discretion to generate orders and execute trades – and it then malfunctions in the process of setting prices or quantities. As currently drafted, there is a risk that all automation and technology is captured, even when it is not multilateral, does not generate orders and therefore does not pose the same level of risk. The potential downside of too broad a definition is that the regulation becomes a barrier to innovation, and in turn the development of EU capital markets if left unaddressed.

Specifically, we are supportive of the definition of algorithmic trading set out under Article 4(1)(39) of MiFID II and the definition of high frequency trading set out under Article 4(1)(40) of MiFID II. Within the scope of the definition of algorithmic trading, it is particularly important to retain the clarification that algorithmic trading "does not include any system that is only used for the purpose of routing orders to one or more trading venues or for the processing of orders involving no determination of any trading parameters or for the confirmation of orders or the post-trade processing of executed transactions." This maintains a key distinction between true algorithmic trading as opposed to workflow automation, which has a categorically lower risk profile. Likewise, multi-venue routing is a common practice in today's electronic market structure and asset managers commonly can control price and quantity limits related to each execution order – however, multi-venue routing processes cannot raise any new orders, and so do not pose the risk of market disruption. We recommend ESMA also reflects on this in any further refinements to the definition.

ESMA Q&A Guidance also states that "computer algorithms captured by the MiFID II definition, notably … the use of algorithms which only serve to inform a trader of a particular investment opportunity is not considered as algorithmic trading, provided that the execution is not algorithmic." This clarification is intuitive; similar to our above explanations on automation, pure data or information processing that supports best execution decision making, but that does not trigger an execution, should not be considered algorithmic trading. It constitutes no systemic risk as such processes would not lead to executions.

As mentioned under Question 4, it would also be useful to clarify the concepts of 'algorithm manufacturer' and 'algorithm user' via Q&A, to reflect the fact that algorithm manufacturers own the source code of an algorithm, and therefore the obligation to ensure rigorous testing and controls properly rests with them. By contrast, algorithm users do not have visibility of the manufacturer's proprietary source code, nor access to their development and testing environments. For example, BlackRock is a user of third-party algorithms and has a robust governance framework to oversee the adoption of these trading technologies. The governance framework includes due diligence on algorithm providers to satisfy ourselves, as users, that the developers have conducted appropriate testing. Due to the proprietary nature of algorithms, however, it would be impossible to fully replicate any testing results of a manufacturer.

While algorithm users should ensure appropriate oversight over their usage of third-party algorithms in line with best execution requirements, responsibility for core testing should remain with the manufacturer as only the manufacturer can provide this with the required rigor. Algorithm manufacturers can support users in their due diligence by making appropriate user guidelines available in a timely manner as and when new iterations or versions are released.
<ESMA_QUESTION_ALGO_15>

Q16 : Do you think there should be specific requirements for different type of algorithms or algorithmic trading strategies in RTS 6? Please explain.

<ESMA_QUESTION_ALGO_16>
BlackRock does not manufacture algorithms and only ever uses execution algorithms provided by third parties (as part of a broader trading toolkit to help achieve best execution on behalf of clients). We would expect those third parties to have RTS-style controls in place, which is a control standard that is working well.

Tailoring requirements to different categories of algorithm could introduce excessive complexity and lead to ambiguity in the requirements for different situations. For these reasons, we believe that the existing broad-based approach is preferable. Investment firms are likely able to reflect the complexity of their algorithm suite better than a more prescriptive framework or granular requirement would be able to.
<ESMA_QUESTION_ALGO_16>

Q17 : What is your experience with testing environments? Are they used frequently? If not, why? Do you see a need for any improvements?

<ESMA_QUESTION_ALGO_17>

TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_17>

Q18 : Do you agree that the definition of "disorderly trading conditions" should be clarified? If yes, how would you define such trading conditions?

<ESMA_QUESTION_ALGO_18>
We do not see a strong need to clarify the definition but the suggested reference to "a market where the maintenance of a fair, orderly and transparent execution of trades is compromised" seems appropriate.
<ESMA_QUESTION_ALGO_18>

Q19 : Do you agree that ESMA should provide additional guidance on the expectations concerning the checks and testing to be done, in particular for testing on disorderly trading conditions?

<ESMA_QUESTION_ALGO_19>
Broad guidance on possible approaches to testing might be useful, but a more prescriptive approach to testing parameters is not necessary or helpful. The market reality is that as a client, BlackRock would ask these questions as part of the detailed due diligence of algorithm manufacturers or providers.

Given the competitive market in which algorithm providers operate, testing and risk controls get a lot of focus and generally work well. Investment firms using algorithmic solutions can readily switch to a competing provider if an algorithm manufacturer was not undertaking adequate testing and risk controls. It is more important that individual firms are made accountable for elaborating testing processes that are suited to the nature of their trading, as is the case currently.

In addition, no testing environment can fully replicate market functioning and therefore greater specificity about the testing environment does not in itself guarantee with complete certainty that an algorithm will behave as expected in a live environment. For this reason, the broader controls that firms implement around algorithmic trading, including initial limited live trading as part of overall testing, remain important.
<ESMA_QUESTION_ALGO_19>

Q20 : Would you agree that it could be beneficial if ESMA develops a prescribed format for the self-assessment foreseen in Article 9 of RTS 6?

<ESMA_QUESTION_ALGO_20>
Whilst we generally support initiatives to standardise information to streamline process and to facilitate comparability, in this case given the heterogeneity of firms' practices, it is likely to be difficult to develop a format that is universally appropriate for all types of firms, given the nature of their operations and trading. We would be concerned if a prescribed format were to make it harder for firms to approach testing in the most appropriate way and therefore encourage ESMA to ensure that any template maintains a degree of flexibility for investment firms.
<ESMA_QUESTION_ALGO_20>

Q21 : Do you agree with the changes proposed to the self-assessment of Article 9 of RTS 6?

<ESMA_QUESTION_ALGO_21>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_21>

Q22 : Would you propose any other targeted legislative amendments to RTS 6? Please include a detailed explanation of the proposed amendment and of the underlying issue that this amendment would aim to tackle.

<ESMA_QUESTION_ALGO_22>
No, RTS 6 generally works well and does not require amending.
<ESMA_QUESTION_ALGO_22>

Q23 : Do you agree with ESMA's proposal to harmonize and create a clear structure for the performance of the self-assessment?

<ESMA_QUESTION_ALGO_23>
Yes.
<ESMA_QUESTION_ALGO_23>

Q24 : Do you agree with limiting the self-assessment to every two years and to require trading venues to share it with their relevant NCA?

<ESMA_QUESTION_ALGO_24>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_24>

Q25 : Do you agree with ESMA's analysis about the overlapping requirements between RTS 6 and 7? Are those overlaps considered beneficial, should they be removed or are there any gaps? Are there any further points that should be clarified?

<ESMA_QUESTION_ALGO_25>
We agree with ESMA's analysis. We believe it is normal to have some element of overlap between testing requirements for investment firms and trading venues, in as much as they are using interrelated systems. For instance, testing of circuit breaker mechanisms requires coordination between trading venues and investment firms. Strict delineation between the testing responsibilities of trading venues and investment firms is not necessary, and indeed we would expect some element of overlap to increase overall resiliency.
<ESMA_QUESTION_ALGO_25>

Q26 : What is your view with regards to the testing of algorithms requirements? Do you agree that more robust testing scenarios should be set?

<ESMA_QUESTION_ALGO_26>
While BlackRock does not manufacture its own algorithms and only uses third-party execution algorithms, we do not think it useful for the regulation to be excessively prescriptive for manufacturers as to which scenarios they should test. While testing should

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certainly be robust and undertaken rigorously, it would be difficult for all conceivable scenarios to be prescribed for, and so it should be left to market participants to identify and prepare for scenarios, in conjunction with trading counterparts.
<ESMA_QUESTION_ALGO_26>

> **Q27** : Are the testing environments available for the testing of algorithms appropriate for this purpose?

<ESMA_QUESTION_ALGO_27>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_27>

> **Q28** : Do you agree with ESMA's analysis that the circuit breaker mechanism achieved its objective to avoid significant disruptions to the orderliness of trading?

<ESMA_QUESTION_ALGO_28>
Yes. However, there are still areas where the application of circuit breakers could be further refined, in order to minimize further disruption. While MiFID II addressed the provision of market resilience controls, such as circuit breakers, across European trading venues, it importantly did not specify the exact mechanisms required or minimum standards for them. The fragmented nature of the European trading ecosystem has in turn led to a wide variety of approaches to volatility controls. This leaves room for confusion and disruption, especially where the same security is traded across multiple venues.

At present, many venues rely on manual interventions to manage volatility events, and the price thresholds used to trigger an intervention also vary across venues. This can lead to situations where, for example, a security could be re-opened for trading on one exchange and on a Request-for-Quote platform, while still being subject to a halt on a different exchange: this causes confusion while also benefitting institutional investors over retail investors. Diverging practices can also lead to different price impacts during volatile periods, impacting confidence in the markets and liquidity provision.

As such, we believe a harmonized, transparent and automated circuit breaker rule should be applied across trading venues. Instead of relying on manual interventions, circuit breakers should employ a uniform uncrossing mechanism based on transparent and consistent threshold levels relative to a dynamic reference price. This process should facilitate the orderly resumption of trading by triggering automated market extensions which gradually widen auction price collars and provide market participants with additional time to reduce order imbalances. We believe the benefits of this approach in terms of simplicity and predictability – through easy comparison and harmonization between exchanges – outweigh the potential impact of market participants being able to take advantage of this information. Ultimately, this would help to create less fragmented EU securities market – much in the way Reg NMS has for the US market.
<ESMA_QUESTION_ALGO_28>

> **Q29** : Do you agree that the requirements under Article 48(5) of MiFID II complemented by RTS 7 and the guidelines on the calibration of circuit breakers and publication of trading halts under MiFID II remain appropriate? If not, what regulatory changes do you deem necessary?

<ESMA_QUESTION_ALGO_29>
We believe further refinement and clarification is necessary in some areas: see Question 28.
<ESMA_QUESTION_ALGO_29>

Q30 : Do you agree that the co-location services and fees structures are fair and non-discriminatory? Please elaborate.

<ESMA_QUESTION_ALGO_30>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_30>

Q31 : Do you think that the disclosures under RTS 10 made by the trading venues are sufficient or should they be harmonized among the different entities? Please explain.

<ESMA_QUESTION_ALGO_31>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_31>

Q32 : Do you agree with ESMA's proposal to set out the maximum OTR ratio, calibrated per asset class?

<ESMA_QUESTION_ALGO_32>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_32>

Q33 Q33: Do you agree that the maximum limits are not frequently exceeded? Please explain any potential underlying issues in this respect that should be recognised.

<ESMA_QUESTION_ALGO_33>
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<ESMA_QUESTION_ALGO_33>

Q34 : Do you agree with the consequences as described of exceeding the maximum limits or should there be a more convergent approach? Please provide any comment or suggestion regarding the procedures in place by trading venues in case of a member exceeding the prescribed limit.

<ESMA_QUESTION_ALGO_34>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_34>

Q35 : Do you agree with the need to improve the notification process in case of IT incidents and system outages? Beyond the notification process between NCAs and ESMA, which improvements could be done regarding communication of incidents to the public?

<ESMA_QUESTION_ALGO_35>

The ESMA consultation paper references prominent exchange outages which were severe in their impact on trading when they occurred. We agree that it is critical to have a better notification process in case of IT incidents.

Beyond the notification process between NCAs and ESMA, it is important to recognize that IT incidents mean significant disruption and potential cost for the market participants and investors who are trading, and can lead to investors having undesired risk exposures. It is essential that exchange members and customers receive information fast and reliably. Without better communication, investors are in the dark as to what is happening and cannot determine whether they need to adapt their trading strategies or not. Hence, any information about IT incidents needs to be swift and reliable. In past outages, trading venue communication has not always been adequate.
<ESMA_QUESTION_ALGO_35>

Q36 : Do you believe any initiative should be put forward to ensure there is more continuity on trading in case of an outage on the main market, e.g. by requiring algo traders to use more than one reference data point?

<ESMA_QUESTION_ALGO_36>
In our view, it is critical to improve the operational risk management and communication around IT incidents and trading venue outages. The focus should be on better risk management and mechanisms that improve the resiliency of the market, enabling trading to resume in a predictable and swift manner.

We think that initiatives which focus on trading venue resiliency and processes for re-opening after outages would be beneficial. One consideration is the degree to which trading can move to alternative venues like MTFs if there are outages. For this to occur, investors need to have confidence in pricing which occurs across all markets, which is currently hampered by the lack of a real-time consolidated tape. With a real-time consolidated view of market pricing, investors would have more visibility and confidence in the price discovery which occurs across all venues. Additionally, investors need trust that other market participants and liquidity providers will also move their trading to other venues. We encourage investigating what mechanisms might help this process.

We strongly disagree with the suggestion of requiring algorithmic traders to use more than one reference data point as this alone does very little to address the root cause of an outage.
<ESMA_QUESTION_ALGO_36>

Q37 : Do you agree with the view that the tick size regime had overall a positive effect on market depth and transaction costs?

<ESMA_QUESTION_ALGO_37>
We do not agree with this conclusion and it is not supported by the cited studies.

We agree that it is one benefit of the tick size regime has been the decreased 'tick competition' – i.e. venues competing with each other for order flow through economically insignificant improvements in quotes – and may have led to a positive stabilization in bid-ask spreads and market depth.

We do not agree that it has led to a positive impact on transaction costs; our reading of the cited studies that document this are that any benefit has been marginal. Additionally, as explained under Question 38, the banning of midpoint crossing in the tick size regime is disadvantageous for investors. It means that investors who would otherwise have been able to trade with each other without market impact now incur unnecessary transaction costs. This creates unnecessary friction for investors and leads to adverse investment outcomes.
<ESMA_QUESTION_ALGO_37>

Q38 : Is there any further issue you would like to highlight regarding tick size regime?

<ESMA_QUESTION_ALGO_38>
As mentioned under Question 37, the notion that the tick size regime has led to lower transaction costs overlooks the ban on midpoint crossing that accompanies it.

While we support a regime that enforces quoting in round ticks and prohibits insignificant tick increments, the inability for market participants to cross orders at midpoint using increments below the minimum tick size ultimately results in unnecessary transaction costs for investors. The tick size regime should put the end investor first; a tick size regime that allows crossing to occur at the midpoint would reduce unnecessary 'tick competition' while retaining the ability for investors to execute without market impact when they meet liquidity that they can cross with.
<ESMA_QUESTION_ALGO_38>

Q39 : Do You agree with the proposal not to amend the tick size regime for third country shares? Please explain.

<ESMA_QUESTION_ALGO_39>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_39>

Q40 : Do you agree with the proposal to widen the scope of the tick size regime to all ETFs? Would this pose challenges in your view? Please explain.

<ESMA_QUESTION_ALGO_40>
Yes. Currently, the application of the regime creates discrepancies across securities and venue types, leading to an un-level playing field for both venues and the types of investors that use them. It will therefore be beneficial to have harmonisation of the regime across both securities – i.e. to all ETFs – and across all venues – including Request for Quote platforms. We also believe this will help foster the development of algorithmic trading on stock exchanges for ETFs, which currently exhibit a disproportionately large activity away from lit venues. A more proportionate amount of lit trading would ultimately foster trust in the market, transparency and it would benefit the end-investor.

Similar to other instruments, midpoint crossing should be allowed for ETFs as well.
<ESMA_QUESTION_ALGO_40>

Q41 : Do you agree with the proposal not to widen the scope of the tick size regime to non-equity instruments? Please explain.

<ESMA_QUESTION_ALGO_41>
Yes. Market structure for other security types mean a tick size regime is not relevant in the way it is for equities.
<ESMA_QUESTION_ALGO_41>

Q42 : Do you agree with ESMA findings and assessment of the current MiFID II market making regime?

<ESMA_QUESTION_ALGO_42>
Yes.
<ESMA_QUESTION_ALGO_42>

Q43 : What do you think of ESMA proposals and suggested amendments to RTS 8? In your view, what other aspects of the market making regime require to be amended and how?

<ESMA_QUESTION_ALGO_43>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_43>

Q44 : What are market participants views regarding the flexibility left in the MiFID II market making regime? Would you agree with ESMA further clarifying certain relevant concepts? If yes, which ones?

<ESMA_QUESTION_ALGO_44>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_44>

Q45 : Could you please describe how Primary Dealers agreements are designed (number of designated Primary Dealers, transparency about investment firms having signed such agreements, typical obligations contained, etc…). Do you consider that Primary Dealers should be exempted from the Article 1 of RTS 8? Do you consider that this can introduce a regulatory loophole?

<ESMA_QUESTION_ALGO_45>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_45>

Q46 : Do you think that venues which introduced asymmetric speedbumps provide enough information regarding the mechanism used? If not, what additional information would be useful to disclose to market participants?

<ESMA_QUESTION_ALGO_46>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_46>

Q47 : Reflecting on those mechanisms which allow liquidity providers to provide quotes that can be filled only against retail order flow, do you think that such mechanisms are beneficial in terms of market quality? Is there any specific aspect that

you think should be further taken into account, also considering the type of instruments traded? Please specify the venue of reference and the type of arrangement discussed.

<ESMA_QUESTION_ALGO_47>
Retail liquidity programs or similar mechanisms which allow liquidity providers to transact with retail order flow enables exchanges to compete on an equal footing for retail order flow. These programs promote more accessible and equitable markets where all investment firms have an opportunity to interact with retail liquidity. Additionally, such mechanisms allow retail orders to remain on venue where they contribute to price formation and greater market transparency. The alternative would be to see more retail activity migrate off-exchange into private liquidity pools which presents a concentrated group of market participants with an informational advantage over retail order flow.
<ESMA_QUESTION_ALGO_47>

Q48 : Do you think that venues which introduce asymmetric speedbumps should set tighter market making requirements? Please explain why and how tight those new requirements should be.

<ESMA_QUESTION_ALGO_48>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_48>

Q49 : Do you agree on the conclusion that speedbumps might not be a well-suited arrangement for equity markets? If yes, do you think that such arrangements for equities should be prohibited in Level 1? Please explain.

<ESMA_QUESTION_ALGO_49>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_49>

Q50 : Do you think that the introduction and functioning of speedbumps should be further regulated? If yes, which specific requirements would you like to be included in EU legislation?

<ESMA_QUESTION_ALGO_50>
Speedbumps have generally been beneficial in providing trading venues with a tool for managing and mitigating the effects of latency arbitrage and high frequency trading. However, the introduction of asymmetric speedbumps has increased complexity needlessly and may have a deleterious effect on equity markets.

As ESMA has noted, the asymmetric application of speedbumps raises concerns over how such mechanisms impact fair and orderly trading. Asymmetric speedbumps are exceedingly discriminatory in nature and confer significant advantages to investment firms which employ certain types of orders, unfairly favoring a subset of market participants. Further, selectively imposing speedbumps only on liquidity removing orders while allowing resting orders to be freely modified or cancelled has the effect of making liquidity in the order book appear illusory. This reduces the reliability of quotes, erodes market integrity and undermines investor confidence.

While asymmetric speedbumps are intended to encourage liquidity providers to quote tighter spreads, empirical observations have provided contradictory findings. For instance, an academic analysis of the TSX Alpha speedbump demonstrated that realized spreads and transaction costs increased as volumes decreased.[1] The mechanism had a detrimental effect on overall market quality as more aggressive quoting would have negated the value of the asymmetric speedbump.

We believe that trading venues which utilize speedbumps should implement them symmetrically across all types of orders or permit unrestricted modification and cancellation of pending orders.
<ESMA_QUESTION_ALGO_50>

Q51   : Is there any specific issue you would like to highlight about speedbumps?

<ESMA_QUESTION_ALGO_51>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_51>

Q52   : What are your views on the relative timing of private fill confirmations and public trade messages? If you are a trading venue, please provide in your answer an explanation of the model you have in place.

<ESMA_QUESTION_ALGO_52>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_52>

Q53   : Do you consider information on the sequencing of these two feeds at trading venues to be easily available? If you are a trading venue, please provide a link to where this information can be found publicly.

<ESMA_QUESTION_ALGO_53>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_53>

Q54   : Do you think there should be any legislative amendments or policy measures in respect of these feed dynamics?

<ESMA_QUESTION_ALGO_54>
TYPE YOUR TEXT HERE
<ESMA_QUESTION_ALGO_54>

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[1] Haoming Chen, Sean Foley, Michael Goldstein & Thomas Ruf, "The Value of a Millisecond: Harnessing Information in Fast, Fragmented Markets", (Nov. 18, 2017) , available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2860359