

# **ESMA Consultation paper on Guidelines on systems and controls in a highly automated trading environment for trading platforms, investment firms and competent authorities**

## **Comments from NASDAQ OMX**

The NASDAQ OMX Group, Inc. delivers trading, exchange technology and public company services across six continents, with more than 3,600 listed companies. NASDAQ OMX offers multiple capital raising solutions to companies around the globe, including its U.S. listings market, NASDAQ OMX Nordic, NASDAQ OMX Baltic, NASDAQ OMX First North, and the U.S. 144A sector. The company offers trading across multiple asset classes including equities, derivatives, debt, commodities, structured products and exchange-traded funds. NASDAQ OMX technology supports the operations of over 70 exchanges, clearing organizations and central securities depositories in more than 50 countries. NASDAQ OMX Nordic and NASDAQ OMX Baltic are not legal entities but describe the common offering from NASDAQ OMX exchanges in Helsinki, Copenhagen, Stockholm, Iceland, Tallinn, Riga, and Vilnius.

### **Introduction**

NASDAQ OMX welcomes the opportunity to comment on the Consultation paper on Guidelines on systems and controls in a highly automated trading environment for trading platforms, investment firms and competent authorities. We acknowledge that our response will be published.

NASDAQ OMX provides comments from the perspective of operator of securities exchanges in multiple jurisdictions in the US and Europe as well as provider of technology to exchanges worldwide.

NASDAQ OMX considers the recent public debate around High Frequency Trading (HFT) is lacking a somewhat broader perspective regarding the general effects of the uncertainty in the future of the global economy and the market developments during the last years. There have clearly been, and will continue to be, technical developments to facilitate more efficient trading both by trading venues and participants. This is natural in an industry where technology is a key asset. What we have seen during the last years are developments by trading venues, i.e. faster and more efficient trading system like NASDAQ OMX's INET, as well as by participants, i.e. direct market access, sponsored access and algorithmic trading. In parallel to this, there have also been huge regulatory changes, in Europe mainly with the introduction of MiFID.

One of the key components of MiFID was to enhance and to open up the competition between trading venues, including introducing the concepts of MTF:s and SI:s. The consequence hereof is what we witness today; a more fragmented less transparent and more technically developed market. Even if these developments have been ascribed to and labeled as HFT, the fact is that the aforementioned market developments had been initiated already before the introduction of the specific HFT firms on the market. The main contributor to these effects would rather be the MTFs that to a large extent have been developed to facilitate such technical trends and thus strengthening such effects.

NASDAQ OMX believes that the developments in the market, with specific firms operating algorithmic trading and some of them acting as HFTs, should be considered in a broader perspective and also take into account the developments of MTFs as well as the surveillance in a more fragmented market.

### **General comments**

With reference to the introduction, in addition to our responses to the questions outlined below, and in an equally constructive spirit, we would like to note the following observations about this consultation in general that go beyond specific issues:

### ***Need for coherent HFT Definition***

There is no official legal definition for HFT as of today. Thus ESMA has instead of defining the term closely acknowledged the fact that there are different strategies involving automated trading that all will be part of the scope. However, the definition of HFT offered by ESMA is not in line with the definition proposed by the European Commission in its MiFID consultation, according to which HFT is a sub-set of automated trading and encompasses many different trading strategies. We believe that it is vital to have a coherent view on what is meant by HFT in order to ensure that there are no misunderstandings that need to be reviewed in the future.

Please find the proposed European Commission definition below:

*“Automated trading, also known as algorithmic trading, can be defined as the use of computer programs to enter trading orders where the computer algorithmic decides on aspects of execution of the order such as timing, quantity and price of the order. A specific type of automated or algorithmic trading is known as high frequency trading (HFT). HFT is typically not a strategy in itself but the use of very sophisticated technology to implement traditional trading strategies.”*

([http://ec.europa.eu/internal\\_market/consultations/docs/2010/mifid/consultation\\_paper\\_en.pdf](http://ec.europa.eu/internal_market/consultations/docs/2010/mifid/consultation_paper_en.pdf))

### ***The scope of the consultation***

The consultation paper concentrates on systems and control. Taken into account the ongoing MiFID review, it would have been logical to include the various other key areas of the review, such as operation of organised trading platforms within the OTC market, in the consultation.

ESMA could still use its guideline powers to also consult and rectify operation of organised trading platforms in the OTC market, since the MiFID review will take some time to come into force. Thus the urgent issues should be addressed within the existing framework at least as much as possible at this point. In fact, before the MiFID is reviewed to encompass also HFT, the current guidelines will be inadequate, as any quantity of HFT trading outside the organised platforms is not labelled as taking place on Regulated Markets or MTFs, and thus will anyway fall outside the scope of the guideline.

In addition, it is proposed that the guidelines in this consultation paper are to be imposed on trading platforms and investment firms. The guidelines are very different depending on which group you are in, which makes sense if every trading venue is classified as a trading venue. However, the consultation only refers to RMs and MTFs trading platforms. We consider this focus to be too narrow. There is the question as to why 'trading platforms' does not also include Systematic Internalisers (SIs), which according to MiFID are trading venues. MiFID does not include any definition of a 'trading platform', only a 'trading venue' or 'execution venue'. By definition these are doing systematic trading and are subject to various trading venue rules. Indeed, some brokers could potentially use their SI licence to interact with HFT as well.

Much of the current policy debate on HFT is focused on the lit markets and any reference to dark venues tends to focus on regulated dark trading venues. Less considered is the issue of interaction of HFT in the OTC market. By contrast, some recent researchers have suggested that HFT exists in the OTC market, probably in particular in the platforms known as Broker Crossing Networks (BCNs) in Europe which are currently regulated as OTC<sup>1</sup>. Whether the HFT trading in the OTC market has the same trading strategies as in RMs or MTFs may not yet be known (due to the limited public information about OTC trading in Europe); however, it is known that the proprietary desks of the crossing system providers often act as market makers applying strategies that are largely comparable to HFT market making on lit markets. As a result, according to one study<sup>2</sup>, '[a]ny assessment of HFT based strategies has to take a functional rather than an institutional approach. HFT is applied by different groups of market players from investment banks to specialized boutiques. Any regulatory approach focusing on specialized players alone risks to (i) undermine a level playing field and (ii) exclude a relevant part of HFT strategies.' NASDAQ OMX believes that the developments in the market, with specific firms operating algorithmic trading and some of them acting as HFTs, should be considered in a broader perspective, taking into the account the developments of MTFs as well as the other players and surveillance in a more fragmented market.

Due to the fact the proposed ESMA guidelines do not cover several main areas covered by the ongoing MiFID review, introducing new separate guidelines concerning these areas might be necessary after introducing the MiFID 2.

NASDAQ OMX has already highlighted in earlier correspondence with ESMA that there is a need to take actions to manage and develop surveillance in a more fragmented market and that this is an aspect that needs further regulatory considerations.

---

<sup>1</sup> Peter Gomber and Axel Pierron (2010) MiFID: Spirit and Reality of a European Financial Markets Directive. Please see : [http://www.fese.be/\\_mdb/news/MiFID\\_report\\_Final%20\(3\).pdf](http://www.fese.be/_mdb/news/MiFID_report_Final%20(3).pdf)

<sup>2</sup> Peter Gomber (2011) 'High Frequency Trading'. Please see : [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1858626](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1858626)

***Answers to specific questions of relevance to NASDAQ OMX as an operator of exchanges (both RM and MTF)***

**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?**

The ESMA draft guidelines are separate from the review of MiFID. The review will cover mostly the same areas as the guidelines and that will most likely, as stated in the draft guidelines, mean that the guidelines need to be amended quite soon. Nevertheless, ESMA considers the importance of automated trading and the fact that authorities try to deal with these new issues within the existing legal framework a reason to introduce guidelines already in the course of 2011. NASDAQ OMX agrees that it is important to introduce and implement new guidance at an early date, particularly taken into the account that the schedule for implementing MiFID 2 is rather undefined.

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

The ESMA draft guidelines cover the main areas of governance, resilience, testing, staff, review, records and co-operation with competent authorities. NASDAQ OMX agrees with the ESMA draft guidelines that the same provisions shall be applied both to MTFs and to RMs.

Please find our comments on some of these aspects below:

Business Continuity Plans

Business Continuity Plans should identify potential risk and threats to the organisation and guidelines and instructions to prevent operational interruptions and to quickly return to the appropriate business state. We consider sufficient and effective risk control processes important.

Testing

We would like to note, that many regulated markets already conduct stress tests of their systems. The purpose of these tests is to ensure that their systems are equipped to deal with a large sudden influx of orders on their markets.

Staff

Regulated markets engage numerous highly qualified and competent employees to manage their electronic trading systems. ESMA should ensure that all new trading platforms established since the introduction of MiFID have equivalent capacity and competence as RMs in this regard.

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

The ESMA draft guidelines cover the main areas of governance, resilience, testing, staff, review, records and co-operation with competent authorities.

Please find our comments on some of these aspects below:

Testing:

No unnecessary restrictions should be placed on liquidity provision. For example, with reference to the European Commission MiFID consultation, no mandating ongoing liquidity provision shall be placed since that would hurt activity whereas incentives would be the better route. Regardless of how much testing is conducted, there will always be an element of risk involved with the implementation of a trading algorithm

However, in such cases where a so-called “rogue algo” becomes present, RMs have certain risk controls, such as circuit breakers, in order to prevent any extreme volatility as happened during the so called Flash Crash in US as referred to in the draft guidelines. In order to ensure the safest possible markets, we agree that these algorithms only be used in markets where they have been tested.

It is not necessary to regulate stress testing of trading venues as regulation and competitive pressure ensures that trading venues provide the necessary investments into their infrastructure and ensure it remains robust.

Testing should be mandatory but implementation of the test processes should be left to the market operators.

**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?**

The ESMA draft guidelines cover areas of controls, IT compatibility, circuit breakers, market access, trader access and records.

Please find our comments on some of these aspects below:

#### Controls

NASDAQ OMX highlights that it is a duty of members/participants or users of trading platforms to ensure that no errors in order entry is made.

#### Testing

As stated already in previous comments regarding testing, it should be mandatory but left to the market operators. Any investment firms operating in the market shall ensure that their algorithmic used is working properly, trading platforms shall not provide infrastructure for that.

#### Circuit breakers

NASDAQ OMX has a functionality called “volatility guards” in place in order to prevent large immediate volatility in the market. This applies for all kinds of trading. The static volatility guard is based on the previous trading day’s closing price and monitors that the market does not move outside a configurable, in percentage per instrument, amount away from this price. If that would occur, a three minute intraday auction takes place. We also have the dynamic volatility guard which works in a similar fashion, configurable per instrument, and is based on the last execution price. This is in order to ensure that a single order does not make the market shift too much. If this guard triggers, a one minute intraday auction takes place.

**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?**

The European markets are to a significant degree interconnected and particularly the introduction of MTFs has resulted in market fragmentation. This development, and the technological development, indeed calls for a regulatory approach that ensures an overall monitoring of the markets in Europe. As trading activities are increasingly fragmented across markets, the need for cooperation among regulators is becoming increasingly important when it comes to market surveillance.

Thus we propose that the primary market should be required to take the primary responsibility for surveillance of specific instruments, while the 'secondary markets' should be required to cooperate. The primary market should have responsibility for establishing surveillance parameters, risk controls, trading suspensions and also for further calibrating of the circuit-breakers. The secondary markets should be obliged to follow these decisions.

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

As stated in the answer on Q9 there is a need to enhance the market surveillance coordination and establish appropriate responsibility for the primary market. With such a development we believe there is no need to further in detail harmonize and regulate the circuit breakers/volatility guards.

**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?**

The ESMA draft guidelines cover the main issues that the policies and procedures of investment firms engaging in HFT should include. NASDAQ OMX agrees that the current legal framework and guidance is sufficient to ensure the fulfillment of the regulatory obligations of the investment firms set in the MiFID and MAD.

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

To promote fair and orderly trading it is important that all the investment firms implement and maintain proper and efficient pre-trade risk management controls.

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

It is essential that any monitoring system put in place in a trading venue is specific and tailored to the size and business of the venue. NASDAQ OMX does not support any one-size-fits-all approach as long as there is a proper coordination of the market surveillance between the markets trading the same or similar instruments.

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

Generally, any abuse that NASDAQ OMX has noticed in the European markets regarding highly automated trading has been by individual traders trying to manipulate the market in the same way that has been done even prior the days of electronic trading. Thus we do not see immediate need for amended regulation but the attention should be towards facilitating cross market surveillance.

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

Please see our answer to Q15 above.

**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?**

The differences between DMA and SA have been expressly described in the text and thus we consider the ESMA draft guidelines deal adequately with this issue. There is no need to change the approach in which requirements for DMA are handled parallel to the requirements for SA.

NASDAQ OMX agrees that the DMA/SA provider firm, i.e. participant, remains responsible for all trades using their market participant ID code. In this regard, those third parties seeking SA must first be approved by the sponsoring firm before applying for a unique ID code from the trading platform. This ID code would be a subset of the code assigned to the trading firm.

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

We consider the differences between DMA and SA are dealt adequately with in the ESMA draft guidelines.

**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?**

It must be ensured in the ESMA (draft) guidelines that adequate pre-trade risk management is in place for ensuring the firm complies with its obligations under current legislation (mainly MiFID and MAD).

**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?**

NASDAQ OMX believes that ESMA must maintain the view expressed by the SEC in Rule 15c3-5: although market centre-provided pre-trade risk controls can be useful risk management tools, they continue to believe that broker-dealers with market access should be responsible in the first instance for establishing and maintaining appropriate risk management controls under the Rule.

**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?**

The ESMA guidelines should as such provide the sufficient explanations and grounds for understanding the meaning and purpose of the adopted guidelines. Bearing that baseline in mind, any additional explanations that might help market participants are well advised.