# Chapter 5A

# Organised trading facilities (OTFs)

5A

## 5A.5 Systems and controls for algorithmic trading

### Systems and controls

**5A.5.1** R A *firm* must ensure that the systems and controls, including procedures and arrangements, used in the performance of its activities are adequate, effective and appropriate for the scale and nature of its business.

**5A.5.2** R ■ MAR 5A.5.1R applies in particular to systems and controls concerning:

(1) the resilience of the *firm's* trading systems;

(2) its capacity to deal with peak order and message volumes;

(3) the ability to ensure orderly trading under conditions of severe market stress;

(4) the effectiveness of business continuity arrangements to ensure the continuity of the *OTF's* services if there is any failure of its trading systems, including the testing of the *OTF's* systems and controls;

(5) the ability to reject orders that exceed predetermined volume and price thresholds or which are clearly erroneous;

(6) the ability to ensure that *algorithmic trading* systems cannot create or contribute to disorderly trading conditions on the *trading venue*;

(7) the ability to ensure that any disorderly trading conditions which do arise from the use of *algorithmic trading* systems are capable of being managed, including systems to limit the ratio of unexecuted orders to *transactions* that may be entered into the *OTF's* trading system by a member or participant;

(8) the ability to ensure that the flow of orders is capable of being slowed down if there is a risk of system capacity being reached;

(9) the ability to limit and enforce the minimum tick size which may be executed on the *OTF*; and

(10) the requirement for members and participants to carry out appropriate testing of algorithms, including providing environments to facilitate that testing.

[**Note:** article 48(1), (4) and (6) of *MiFID*, *MiFID RTS 7*, *MiFID RTS 9*, and *MiFID RTS 11*]

## Market making agreements

**5A.5.3** R A *firm* must:

(1) have written agreements with all *investment firms* pursuing a *market making strategy* on *trading venues* operated by it (market making agreements);

(2) have schemes, appropriate to the nature and scale of a *trading venue*, to ensure that a sufficient number of *investment firms* enter into market making agreements which require them to post firm quotes at competitive prices with the result of providing liquidity to the market on a regular and predictable basis;

(3) monitor and enforce compliance with the market making agreements;

(4) inform the *FCA* of the content of its market making agreements; and

(5) provide the *FCA* with any information it requests which the *FCA* reasonably requires to be satisfied that the market making agreements comply with this *rule*.

[**Note:** article 48(2) and (3) of *MiFID* and *MiFID RTS 8*]

**5A.5.4** R A market making agreement in ■ MAR 5A.5.3R(1) must specify:

(1) the obligations of the *investment firm* in relation to the provision of liquidity;

(2) where applicable, any obligations arising, or rights accruing, from the participation in a liquidity scheme mentioned in ■ MAR 5A.5.3R(2); and

(3) any incentives in terms of rebates or otherwise offered by the *firm* to the *investment firm* in order for it to provide liquidity to the *OTF* on a regular and predictable basis and, where applicable, any other rights accruing to the *investment firm* as a result of participation in the liquidity scheme.

[**Note:** article 48(3) of *MiFID* and *MiFID RTS 8*]

## Measures to prevent disorderly markets

**5A.5.5** R A *firm* must have the ability to:

(1) temporarily halt or constrain trading on the *OTF* if there is a significant price movement in a *financial instrument* on the *OTF* or a related *trading venue* during a short period; and

(2) in exceptional cases, cancel, vary, or correct, any *transaction*.

[**Note:** article 48(5) of *MiFID*]

**5A.5.6** R For the purposes of ■ MAR 5A.5.5R, and to avoid significant disruptions to the orderliness of trading, a *firm* must calibrate the parameters for halting trading in a way which takes into account the following:

(1) the liquidity of different asset classes and subclasses;

(2) the nature of the *trading venue* market model; and

(3) the types of users.

[**Note:** article 48(5) of *MiFID*]

**5A.5.7** R The *firm* must report the parameters mentioned in MAR 5A.5.6R to the *FCA* in writing, by electronic mail to an address for the usual supervisory contact of the *firm* at the *FCA*, and obtain an electronic confirmation of receipt.

[**Note:** article 48(5) of *MiFID*]



**5A.5.8** R A *firm* must have systems and procedures to notify the *FCA* if:

(1) an *OTF* operated by it is material in terms of the liquidity of the trading of a *financial instrument*; and

(2) trading is halted in that instrument.

[**Note:** article 48(5) of *MiFID*]

## Direct electronic access

**5A.5.9** R A *firm* which permits *direct electronic access* to an *OTF* it operates must:

(1) not permit members or participants of the *OTF* to provide such services unless they are:

*(a)* *MiFID investment firms*; or

*(b)* *CRD credit institutions*; or

(c) third country firms providing the *direct electronic access* in the course of exercising rights under article 46.1 of *MiFIR*; or

(d) third country firms providing the *direct electronic access* in the course of exercising rights under article 47.3 of *MiFIR*; or

(e) third country firms providing the *direct electronic access* in accordance with the exclusion in article 72 of the *RAO*; or

(f) third country firms which do not come within MAR 5A.5.9R(1)(d) to (f) but are otherwise permitted to provide the *direct electronic access* under the *Act*; or

*(g)* *firms* that come within regulation 30(1A) of the *MiFI Regulations* and have a *Part 4A permission* relating to *investment services or activities*;

(2) set and apply criteria for the suitability of *persons* to whom *direct electronic access* services may be provided;

(3) ensure that the member or participant of the *OTF* retains responsibility for adherence to the requirements of *MiFID* in respect of orders and trades executed using the *direct electronic access* service;

(4) set standards for risk controls and thresholds on trading through *direct electronic access*;

(5) be able to distinguish and if necessary stop orders or trading on that trading venue by a person using *direct electronic access* separately from:

(a) other orders; and

(b) trading by the member or participant providing the *direct electronic access*; and

(6) have arrangements to suspend or terminate the provision of *direct electronic access* on that market by a member or participant in the case of any non-compliance with this *rule*.

[**Note:** article 48(7) of *MiFID*]



## Co-location

**5A.5.10** R Where a *firm* permits co-location in relation to the *OTF*, its rules on co-location services must be transparent, fair and non-discriminatory.

[**Note:** article 48(8) of *MiFID* and *MiFID RTS 10*]

## Fee structures

**5A.5.11** R A *firm's* fee structure, for all fees it charges and rebates it grants in relation to the *OTF*, must:

(1) be transparent, fair and non-discriminatory;

(2) not create incentives to place, modify or cancel orders, or execute *transactions*, in a way which contributes to disorderly trading or *market abuse*; and

(3) impose market making obligations in individual *financial instruments* or suitable baskets of *financial instruments* for any rebates that are granted.

[**Note:** article 48(9) of *MiFID* and *MiFID RTS 10*]

**5A.5.12** G Nothing in ■ MAR 5A.5.11R prevents a *firm*:

(1) adjusting its fees for cancelled orders according to the length of time for which the order was maintained;

(2) calibrating its fees to each *financial instrument* to which they apply;

(3) imposing a higher fee:

(a) for placing an order which is cancelled than an order which is executed;

(b) on participants placing a high ratio of cancelled orders to executed orders; and

(c) on a *person* operating a *high-frequency algorithmic trading technique*,

in order to reflect the additional burden on system capacity.

[**Note:** article 48(9) of *MiFID*]

## Flagging orders, tick sizes and clock synchronisation

**5A.5.13** R A *firm* must require members and participants of an *OTF* operated by it to flag orders generated by *algorithmic trading* in order for the *firm* to be able to identify the following:

(1) different algorithms used for the creation of orders; and

(2) the *persons* initiating those orders.

[**Note:** article 48(10) of *MiFID*]



**5A.5.14** R The *firm* must adopt tick size regimes for *financial instruments* as required by a regulatory technical standard made under powers conferred by *MiFIR*.

[**Note:** article 49 of *MiFID* and *MiFID RTS 11*]

**5A.5.14A** R A *firm* adopting tick sizes in accordance with ■ MAR 5A.5.14R may match orders large in scale at mid-point within the current bid and offer prices.

[**Note**: article 49 of *MiFID* and *MiFID RTS 11*]

**5A.5.15** R The tick size regime referred to in ■ MAR 5A.5.14R must:

(1) be calibrated to reflect the liquidity profile of the *financial instrument* in different markets and the average bid-ask spread, taking into account the desirability of enabling reasonably stable prices without unduly constraining further narrowing of spreads; and

(2) adapt the tick size for each *financial instrument* appropriately.

[**Note:** article 49 of *MiFID* and *MiFID RTS 11*]

**5A.5.16** G Nothing in ■ MAR 5A.5.14R or ■ MAR 5A.5.15R requires a *firm* to act inconsistently with any regulatory technical standards made under powers conferred by *MiFIR*.

[**Note:** article 49 of *MiFID*]

**5A.5.17** R The *firm* must synchronise the business clocks it uses to record the date and time of any reportable event.

[**Note:** article 50 of *MiFID* and *MiFID RTS 25*]

**5A.5.18** G For the purpose of ■ MAR 5A.5.17R, *MiFID RTS 25* provides further requirements.