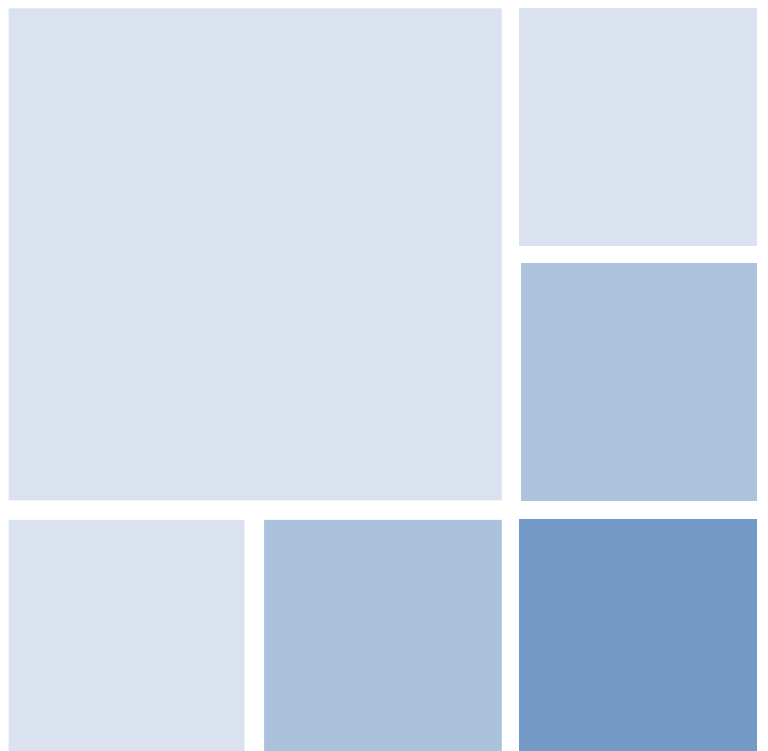




GLOBAL MARKETS DIVISION

SIGMA X MTF™ Rulebook

Version 2.3



1. DEFINITIONS AND INTERPRETATION.....	2
2. MEMBERSHIP.....	6
3. DIRECT ELECTRONIC ACCESS.....	8
4. RELATIONSHIP WITH PARTICIPANTS.....	10
5. CONTINUING OBLIGATIONS.....	11
6. ACCESS TO SIGMA X MTF.....	13
7. ADMISSION, SUSPENSION AND REMOVAL OF SECURITIES FROM TRADING.....	15
8. TRADING RULES.....	17
9. ERRONEOUS TRADES.....	19
10. TRADING HALTS.....	20
11. SETTLEMENT.....	21
12. ORDER PRIORITY AND INTERNALISATION AND SELF-CROSS PREVENTION SERVICES.....	22
13. MARKET CONDUCT.....	23
14. INFORMATION AND RECORD KEEPING.....	24
15. NOTIFICATIONS.....	25
16. COMPLAINTS AND DISPUTES.....	26
17. DISCIPLINARY POWER AND SANCTIONS; APPEALS.....	27
18. AMENDMENTS TO THESE RULES AND TO SIGMA X MTF.....	28
19. TAX.....	29
20. ROLE OF GOLDMAN SACHS INTERNATIONAL BANK.....	30
21. GENERAL.....	31

1. DEFINITIONS AND INTERPRETATION

1.1. In these Rules the following terms shall have the following meanings:

Access Methods means one or more unique identifiers (which may be in the form of a password) or other access methods specified by the Operator that interface with SIGMA X MTF.

Act of Insolvency means, in relation to an entity, where such entity:

- (i) is dissolved (other than pursuant to a consolidation, amalgamation or merger);
- (ii) becomes insolvent or is unable to pay its debts or fails or admits in writing its inability generally to pay its debts as they become due;
- (iii) makes a general assignment, arrangement or composition with or for the benefit of its creditors;
- (iv) institutes, or has instituted against it a proceeding seeking a judgement of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation;
- (v) has a resolution passed for its winding-up, official management or liquidation (other than pursuant to a consolidation, amalgamation or merger);
- (vi) seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all its assets;
- (vii) has a secured party take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets;
- (viii) causes or is subject to any event with respect to it which, under the applicable laws of any jurisdiction, has an analogous effect to any of the events specified in (i) to (vii) above (inclusive); or
- (ix) takes any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the foregoing acts.

Admission Criteria means the criteria set out in Rule 2.6 (*Membership*).

Affiliate means any entity controlled directly or indirectly by GSIB, any entity that controls GSIB directly or indirectly, or any entity directly or indirectly under common control with GSIB.

Appeals Officer means the independent appellant officer for Participants that appeal any decision made by the Operator under and pursuant to Rule 17 (*Disciplinary Power and Sanctions; Appeals*).

Applicable Law means the rules of any relevant Regulator, the rules of any relevant exchange, and all other laws, rules and regulations in force from time to time, as applicable to SIGMA X MTF or to the Operator's provision of the Services or a Participant's use of SIGMA X MTF under these Rules.

Applicant means a person applying to become a Participant.

Auction means, in respect of a Security, a periodic auction occurring in relation to that Security on the SIGMA X Auction Book.

Auction Call Period means, in respect of a Security, the period during which an Auction occurring in respect of that Security is in the auction call phase, as described in the Participant Manual.

Auction Uncross means the allocation of Orders and the generation of trades following a successful Auction.

Buyer means the Participant who enters an Order that is buying a Security

Central Counterparty means European Central Counterparty N.V., SIX x-clear AG, LCH.Clearnet Limited or any other Central Counterparty appointed by the Operator and notified to Participants as applicable.

Compliance Officer means the person from time to time designated by the Operator for the purpose of these Rules as responsible for compliance matters relating to SIGMA X MTF.

COO means the SIGMA X MTF Chief Operating Officer.

Credit Approval Checks means the checks used by the Operator to determine the credit worthiness of an Applicant as set out in the Participant Manual.

Direct Electronic Access means arrangements where a Participant allows its clients to use its trading code so that they can electronically transmit orders directly onto SIGMA X MTF through that Participant's systems or infrastructure (including risk management systems) or any connecting system provided by the Participant to transmit the orders.

Direct Electronic Access Agreement means an agreement between a Participant and its client under which the Participant provides its client with Direct Electronic Access.

EEA means the European Economic Area.

FCA means the UK Financial Conduct Authority or any successor body.

FCA Rules means the rules set out in the FCA Handbook as amended from time to time.

Fees means any fees, charges or dues payable in relation to the Services as determined from time to time by the Operator and set out in the Fee Schedule.

Fee Schedule means the schedule of Fees published on the Website as amended from time to time.

GSIB means Goldman Sachs International Bank, whose registered office is Plumtree Court, 25 Shoe Lane, London, England, EC4A 4AU.t

LCIA means the London Centre for International Arbitration.

LIS means an order that is Large in Scale compared with normal market size for a relevant instrument as specified within Annex II of RTS 1

MAR means the Market Abuse Regulation (Regulation 596/2014).

MiFID means the Markets in Financial Instruments Directive (Directive 2014/65/EU).

MiFIR means the Markets in Financial Instruments Regulation (Regulation 600/2014/EU).

Notice means any written communication, labelled as such and issued on the Website by the Operator to Participants generally or to any class of Participants for the purpose of interpreting, implementing or supplementing these Rules or any other purpose contemplated in these Rules.

Officer means a director, partner, member of the committee of management, chief executive, manager, secretary, or other similar officer of a Participant, or a person purporting to act in that capacity.

Operator means GSIB acting in its capacity as operator of SIGMA X MTF.

Order means a buy or sell order in relation to a Security submitted to SIGMA X MTF by a Participant.

Oversight Group means the group of senior Goldman Sachs personnel established to supervise the management of SIGMA X MTF.

Participant means a person who has been accepted as a participant on SIGMA X MTF in accordance with Rule 2 (*Membership*) and who is not accessing SIGMA X MTF through the systems of GSIB as its client.

Participant Agreement means the agreement entered into between the Operator and each Participant as amended by the parties from time to time.

Participant Due Diligence Questionnaire means the due diligence questionnaire the Operator shall utilise for the purposes of assessing the Participant's compliance with the conditions for using the SIGMA X MTF order submission system from time to time.

Participant Manual means the manual available to Participants setting out guidance and practical information on SIGMA X MTF, as amended by the Operator from time to time.

Participant Notice means a notification sent by email to a Participant or one which is communicated on the Website.

PRA means the UK Prudential Regulation Authority or any successor body.

Primary Market means the Regulated Market on which the Operator determines a Security has its primary listing.

Regulated Market means a UK regulated market as defined in Article 2(1)(13A) MiFIR, an EU regulated market as defined in Article 2(1)(13B) MiFIR, or a market which meets comparable requirements to those applicable to a UK regulated market and which deals in financial instruments of a quality comparable to those in a regulated market in the United Kingdom.

Regulator means, as applicable, the FCA or the competent authority of any EEA Member State as defined in Article 4(1)(26) of MiFID.

Regulatory Suspension means the suspension of or removal from trading in a Security on any venue, following the request of a Regulator, where the suspension or removal is due to suspected market abuse, a take-over bid or the non-disclosure of inside information about the issuer or financial instrument infringing MAR. **RTS 1** means Commission Delegated Regulation 2017/587 supplementing MiFIR.

Securities means the securities admitted to trading on SIGMA X MTF as decided by the Operator in accordance with Rule 6 (*Access to SIGMA X MTF*) and as notified to Participants from time to time and published on the Website.

Seller means the Participant who enters an Order that is selling a Security

Services means the right to access SIGMA X MTF, enter Orders on SIGMA X MTF order books, receive status updates on Orders, amend Orders, cancel Orders, execute trades against Orders on any of the SIGMA X MTF order books, receive data feeds from SIGMA X MTF containing (without limitation) certain information relating to Order execution and receive such other services as the Operator may provide through SIGMA X MTF.

SIGMA X Auction Book means the displayed liquidity pool as described in the Participant Manual.

SIGMA X MTF means the multilateral trading facility operated by GSIB for the trading of Securities in accordance with these Rules.

for the relevant instrument are formalised on-venue in accordance with the Participant Manual.

SIGMA X Non-Displayed Book means the non-displayed liquidity pool as described in the Participant Manual.

SIGMA X MTF Technical Specifications means the technical specification documents made available to Applicants on the Website which include the connectivity requirements for participation on SIGMA X MTF.

Software means all software provided to Participants by the Operator in respect of the Services now and in the future, in object code, source code or any other format, including any updates, modifications and additions thereto, as well as all associated documentation in any media.

Support Team means the persons from time to time designated by the Operator for the purpose of these Rules as providing support services to Participants.

Takeover Panel means the UK Panel on Takeovers and Mergers or any successor body.

Transaction means a transaction in Securities executed on SIGMA X MTF.

Website means the SIGMA X MTF website: gset.gs.com/sigmaxmtf

- 1.2. In these Rules words defined in the FCA Rules, MiFID, MiFIR or MAR shall have the same meaning as that given in the FCA Rules, MiFID, MiFIR or MAR unless defined herein or the context requires otherwise. References to statutory provisions, regulations, notices or Applicable Law shall include those provisions, regulations, notices or rules as amended, extended, consolidated, substituted or re-enacted from time to time. Unless the context requires otherwise, words importing the singular shall be deemed to include the plural and vice versa.
- 1.3. In these Rules, references to EU legislation shall be understood to be references to the UK version of that EU legislation that is part of UK law by virtue of the European Union (Withdrawal) Act 2018
- 1.4. Decisions and actions to be taken under these Rules by the Operator shall be taken by the COO or by such other persons as the COO, with the guidance of the Oversight Group, designates from time to time for that purpose. Unless otherwise specified, any decisions and actions shall take effect from the time determined by the Operator.
- 1.5. These Rules may from time to time be interpreted by Notices applicable to business on SIGMA X MTF.
- 1.6. To the extent that there is a conflict between the Rules and any other document relating to SIGMA X MTF, the Rules shall prevail.

- 2.1. The Operator will consider Applicants who meet the Admission Criteria set out in Rule 2.6 (*Membership*) below for admission as Participants on SIGMA X MTF. However, participation on SIGMA X MTF is subject to the discretion of the Operator to reject an Applicant if it considers that to accept the Applicant would be inconsistent with the operation and maintenance of an efficient, fair and orderly market on SIGMA X MTF.
- 2.2. Applicants must submit the following to the Operator:
- (i) a completed SIGMA X MTF application form;
 - (ii) a signed Participant Agreement;
 - (iii) a completed Participant Due Diligence Questionnaire;
 - (iv) a list and details of key contacts; and
 - (v) any additional information reasonably required by the Operator to enable it to assess whether an Applicant meets the Admission Criteria or otherwise in connection with the application or for the purposes of any proposed Direct Electronic Access arrangements.
- 2.3. The documents relevant to SIGMA X MTF, including without limitation the documents required to submit an application, the Participant Manual, the SIGMA X MTF Technical Specifications and any guidance, decisions or directions applicable to all Participants and issued by the Operator, may be available on the Website or provided by the Operator on request. Unless otherwise specified by the Operator, any change to these documents shall take effect from the time determined by the Operator and will be notified to Participants by Participant Notice.
- 2.4. The Operator will notify any changes to the Fee Schedule to Participants at least one calendar month prior to such change taking effect.
- 2.5. The Operator will notify each Applicant whether or not its application has been approved. If the application is approved, the Operator will state in its notice the date on which the Applicant's participation shall become effective.
- 2.6. A Participant must satisfy the following Admission Criteria. A Participant must:
- (i) be a credit institution or investment firm authorised or regulated by the FCA (and the PRA, as applicable);
 - (ii) carry on business from an establishment maintained in the UK
 - (iii) satisfy the Credit Approval Checks carried out by the Operator;
 - (iv) have successfully completed the SIGMA X MTF conformance testing as further described in the Participant Manual;
 - (v) have in place appropriate technology and systems to enable it to access SIGMA X MTF and appropriate security measures, as set out in the SIGMA X MTF Technical Specifications;
 - (vi) have internal systems and controls satisfactory to the Operator in place to prevent trading errors and to ensure ongoing compliance with, and prevent breaches of, Applicable Law, these Rules and the Participant Manual (including, but not limited to, controls governing the minimum size and value of orders which that Participant submits to SIGMA X MTF);

- (vii) be a clearing member of the Central Counterparty or otherwise have made arrangements to ensure the timely clearing and settlement of Transactions which are satisfactory to the Operator;
 - (viii) have satisfied the anti-money laundering checks carried out by the Operator; and
 - (ix) have satisfied the Operator's systems due diligence assessment.
- 2.7. Should the Operator decide to refuse an Applicant from becoming a Participant because such Applicant fails to satisfy the Admission Criteria, such Applicant may request that the decision be referred to the Oversight Group. For the avoidance of doubt, the decision of the Oversight Group will be final.
- 2.8. A Participant must give the Operator thirty (30) calendar days' notice in writing of its intention to resign from participation in SIGMA X MTF.
- 2.9. The Operator may, in its absolute discretion, refuse to accept notice of resignation in the event that it considers there is an outstanding matter concerning the Participant that is subject to ongoing investigation.
- 2.10. A Participant's resignation is not effective and these Rules will continue to bind the Participant until:
- (i) all the Participant's outstanding Orders have been matched, cancelled or withdrawn;
 - (ii) all outstanding obligations of that Participant with respect to Transactions have been performed;
 - (iii) all other outstanding obligations of that Participant under these Rules have been performed; and
 - (iv) the Operator has consented in writing to the resignation.
- 2.11. The Operator may, on thirty (30) calendar days' prior notice delivered to Participants in writing by Participant Notice, terminate the operation of SIGMA X MTF for any reason.
- 2.12. The Participant shall, at least annually, be subject to the Operator's systems due diligence assessment. The Operator may undertake additional assessments following such system due diligence assessment where it considers it necessary from time to time. The Operator reserves the right to take such action as it, in its sole discretion, considers necessary or appropriate where it deems a Participant to have failed to satisfy any aspect of its systems due diligence assessment which may include suspension or termination of the Participant's membership.
- 2.13. Notwithstanding that GSIB is the Operator, Affiliates may be Participants. However, GSIB is not and will not be a Participant. The Operator shall not be restricted or prevented from taking any action under these Rules by reason of any of its Affiliates being a Participant, using SIGMA X MTF or being a party to any Transaction.

3. DIRECT ELECTRONIC ACCESS

- 3.1. Only Participants will be able to access SIGMA X MTF.
- 3.2. Each Participant must provide prior notice of its intention to provide Direct Electronic Access to clients of that Participant. Such notice should be provided to the Compliance Officer and/or SIGMA X MTF COO.
- 3.3. Participants providing Direct Electronic Access must have effective systems and controls which ensure a proper assessment and review of the suitability of their clients to utilise Direct Electronic Access, that clients are prevented from exceeding appropriate pre-set trading and credit thresholds, that client trading is properly monitored and appropriate risk controls prevent trading that may create risks to the Participant itself or could create disorderly trading, facilitate conduct contrary to MAR or adversely affect compliance with these Rules.
- 3.4. Prior to permitting its client to have Direct Electronic Access to SIGMA X MTF, a Participant must carry out due diligence on any client with whom it intends to enter into a Direct Electronic Access Agreement, and ensure that such client has adequate systems and controls in place, including pre- and post- trade controls, to ensure that the provision of the Direct Electronic Access to that client does not adversely affect compliance with these Rules, lead to disorderly trading or facilitate conduct contrary to MAR. As a minimum, such due diligence must comply with the requirements specified in Article 22 of Commission Delegated Regulation (EU) 2017/589 and the Participant must confirm to the Operator that such due diligence has been completed. Participants are not permitted to provide Direct Electronic Access to their clients until they have received a formal consent from the Operator of SIGMA X MTF that this is permissible. Participants may be requested to periodically update such due diligence confirmations in respect of their clients.
- 3.5. Participants are solely responsible for all activity carried out on SIGMA X MTF using their Access Methods. For the avoidance of doubt this includes any activity carried out on SIGMA X MTF by clients of Participants via a Direct Electronic Access Agreement, and therefore Participants may be subject to disciplinary action in respect of activity carried out by such clients.
- 3.6. A Participant is solely responsible for every Order submitted to SIGMA X MTF by the Participant or by a client of the Participant under a Direct Electronic Access Agreement between that client and the Participant, irrespective of the capacity in which the Participant acted when placing the Order.
- 3.7. The Participant shall separately identify Orders placed by the Participant and Orders placed by a client under a Direct Electronic Access arrangement via its Access Methods in accordance with the SIGMA X MTF Technical Specifications on the Website.
- 3.8. The Operator may suspend or terminate the Direct Electronic Access to specific clients of a Participant in case of non-compliance with these Rules, MiFID, MiFIR and/or MAR.
- 3.9. The Operator provides the Services to Participants, but has no relationship with or obligations towards any client of a Participant, including where such client gains indirect access to SIGMA X MTF via a Direct Electronic Access Agreement with the Participant.
- 3.10. The Participant shall ensure its ability to cancel any Orders placed, or trading done by a client under a Direct Electronic Access Agreement with that Participant.

- 3.11. Upon request and to the extent necessary, a Participant shall allow any independent auditor appointed by the Operator to carry out a review of the Participant's internal risk control systems in relation to the Participant's provision of Direct Electronic Access to its underlying clients (and shall provide all necessary assistance to the auditor in this regard).

4. RELATIONSHIP WITH PARTICIPANTS

- 4.1. Neither the relationship between the Operator and a Participant, nor the provision of the Services by the Operator shall give rise to any fiduciary or equitable duties on the part of the Operator which would oblige it to accept responsibilities more extensive than those set out in these Rules.
- 4.2. If the Operator receives a payment or other benefit from any person in respect of the operation of SIGMA X MTF or any Transaction or use of any information relating thereto, it shall be authorised and entitled to retain any such payment or benefit and shall not be liable to account for the same to any Participant, and the Fees shall not be abated thereby.
- 4.3. The Operator may provide access to data feeds or other information as part of the Services. Unless expressly acknowledged by the Operator in writing, none of this information is based on a consideration of the circumstances of a particular Participant, in any way tailored to suit a Participant's particular financial circumstances or presented as suitable for a Participant. Therefore, a Participant should not view the fact that the Operator is making this information available as "investment advice" (as such term is defined in MiFID) in respect of any particular investment or investment strategy. Participants agree that the Operator shall not be liable for any such information that may be made available to Participants and on which a Participant relies in whole or in part in connection with any investment decision.
- 4.4. The Operator gives no guarantee that an Order submitted to SIGMA X MTF will be executed.

5. CONTINUING OBLIGATIONS

- 5.1. Each Participant must ensure that it complies at all times with the requirements of these Rules, the Participant Agreement, the Participant Manual, the SIGMA X MTF Technical Specifications and any other manuals, procedures, guidance, directions given by the Operator.
- 5.2. Each Participant must ensure that it meets and continues at all times while it is a Participant to meet the Admission Criteria.
- 5.3. Each Participant must ensure that it, and each of its Officers, employees and agents, complies with all duties and obligations imposed by Applicable Law or by a relevant Regulator, including but not limited to the regulatory requirements related to algorithmic trading, reporting Transactions, reporting of significant shareholdings and maintaining appropriate records of such Transactions.
- 5.4. Each Participant must ensure that any information, statement or representation made by it or by any of its Officers, employees or agents in any application, report or other communication to the Operator is not false or misleading.
- 5.5. Each Participant must ensure that it meets and continues to meet the technology requirements specified by the Operator as amended from time to time. Prior to any substantial update to a Participant's trading system, trading algorithm or trading strategy, the Participant must undertake conformance testing within the SIGMA X MTF conformance testing environment. The Operator shall provide the Participant with a report containing the results of the conformance testing and whether the updated trading system, algorithm or strategy (as applicable) may be deployed.
- 5.6. SIGMA X MTF will provide access to a test environment to allow Participants to test their algorithms in several scenarios, including under disorderly trading conditions (where applicable). Prior to a Participant deploying an algorithm on SIGMA X MTF, including any substantial update to such algorithms, a Participant must have tested such algorithm to avoid such algorithms contributing to or creating disorderly trading conditions. By deploying an algorithm on SIGMA X MTF, a Participant will be deemed to have certified that such algorithm has been tested to avoid contributing to or creating disorderly trading conditions.
- 5.7. The Participant shall have sole responsibility for providing and maintaining all necessary electronic communications with SIGMA X MTF including (but not limited to) wiring, computer hardware, software, communication line access and networking devices to the extent that any of the foregoing has not been provided or supplied to the Participant by the Operator.
- 5.8. The Participant shall maintain a connection to SIGMA X MTF of such minimum quality as the Operator may reasonably prescribe from time to time. The failure to provide an adequate connection or adequate equipment may result in termination of the Participant's participation on SIGMA X MTF.
- 5.9. Each Participant must ensure that each Officer, employee and agent who has access to SIGMA X MTF is given appropriate training and supervision in relation to their function on SIGMA X MTF.
- 5.10. Each Participant must ensure its timely payment of any Fees owed to the Operator by virtue of the Participant's membership or use of SIGMA X MTF or the Services, plus any applicable UK Value Added Tax or any other taxes.

- 5.11. The Operator will publish information on Transactions in accordance with its obligation to make trade reports under MiFIR. Participants must not report the same Transactions elsewhere in accordance with any trade reporting requirement imposed under MiFIR.

6. ACCESS TO SIGMA X MTF

- 6.1. A Participant's access to SIGMA X MTF shall be subject to use of one or more Access Methods. A Participant is solely responsible for ensuring the security of its Access Methods, and that its Access Methods are known to and used only by its authorised users. Unless a Participant has received the express written approval of the Operator, any use of the Services by its authorised users who are located outside the jurisdiction of the Participant's country of domicile is strictly prohibited and each Participant shall ensure that there is no such use by any such authorised users.
- 6.2. A Participant shall be (a) solely responsible for all acts or omissions of any person using the Services through its Access Methods; (b) bound by the terms of all Transactions using its Access Methods; and (c) solely responsible for monitoring, in accordance with its internal policies and procedures, its authorised users using the Services to confirm trades executed by such authorised users. All Transactions generated by use of the Participant's Access Methods will be deemed to be authorised by the Participant.
- 6.3. The Participant shall notify the Operator immediately if its Access Methods are lost, stolen or compromised. Upon receipt of this notice, its Access Methods will be promptly cancelled but the Participant will be responsible for any actions taken through the use of such Access Methods before they are cancelled.
- 6.4. The Operator may terminate, revoke, suspend, modify or change any or all of a Participant's Access Methods at any time with or without prior notice where the Operator considers in its absolute discretion that such action is necessary or appropriate to maintain fair and orderly trading on SIGMA X MTF. Furthermore, the Operator may suspend the Participant's Access Methods at its initiative, at the request of the Participant, a clearing member, a Central Counterparty, where provided for in the relevant Central Counterparty's rules or where requested by a competent authority, including the FCA.
- 6.5. The Operator shall not be responsible for ensuring that the SIGMA X MTF systems are compatible with a Participant's equipment, hardware or software or any third party equipment, hardware or software required by but not provided by the Operator. A Participant shall be solely responsible for obtaining any third party hardware, software or other equipment or technology necessary to make use of, or to access, the Services and shall be responsible for any costs involved in acquiring such hardware, software, equipment or other technology. The Operator shall have no obligation to support any such third party hardware, software, equipment or other technology.
- 6.6. The Operator and any third party licensors shall retain all rights and title (to the extent of the interests of the Operator and such third parties) to all proprietary computer programs, techniques, algorithms and processes contained therein, and the "look and feel" and graphic elements of the Software. Participants must not copy the Software, except as necessary for archival or backup purposes, subject to appropriate security measures.
- 6.7. A Participant must not make any alteration, change or modification to the Software. A Participant must not recompile, decompile, disassemble, reverse engineer, or make or distribute any other form of or any derivative work, including but not limited to the "look and feel" and graphic elements, from the Software and/or the Services, except as permitted by Applicable Law.

- 6.8. A Participant must maintain its Access Methods and systems in such a manner as to ensure that no unauthorised access to SIGMA X MTF is allowed, that its systems are compatible with those of SIGMA X MTF and that its systems do not cause disruption to SIGMA X MTF, whether due to faulty operation, introduction of viruses or otherwise.
- 6.9. Securities traded on SIGMA X MTF are not permitted to be subject to a charge or encumbrance of any kind.
- 6.10. If, at any time and at the Operator's sole discretion, a Participant poses a credit risk to SIGMA X MTF, the Operator may suspend, restrict or terminate that Participant's access to SIGMA X MTF.

7. ADMISSION, SUSPENSION AND REMOVAL OF SECURITIES FROM TRADING

- 7.1. The Operator will only admit Securities to trading on SIGMA X MTF where they have a primary listing on a Regulated Market. However, the decision to admit a Security to trading on SIGMA X MTF is at the discretion of the Operator.
- 7.2. The Operator will immediately suspend or remove from trading any Security without prior notice to Participants if requested to do so by a Regulator. If a Regulatory Suspension has taken place the Operator shall also suspend or remove from trading the relevant Security, but only where such suspension or removal would not be likely to cause significant damage to the investors' interests or the orderly functioning of the market.
- 7.3. Unless such suspension or removal would be likely to cause significant damage to the investors' interests or the orderly functioning of the market, the Operator may also suspend or remove any Security from trading without prior notice to Participants where it considers in its absolute discretion that suspension or removal is required to maintain fair and orderly trading on SIGMA X MTF or where it deems such Security no longer complies with these Rules.
- 7.4. A suspension or removal would be deemed likely to cause significant damage to the investors' interests or the orderly functioning of the market at least in the following circumstances:
- (i) where it would create a systemic risk undermining financial stability, such as where the need exists to unwind a dominant market position, or where settlement obligations would not be met in a significant volume;
 - (ii) where the continuation of trading on the market is necessary to perform critical post-trade risk management functions when there is a need for the liquidation of financial instruments due to the default of a clearing member under the default procedures of a Central Counterparty and a Central Counterparty would be exposed to unacceptable risks as a result of an inability to calculate margin requirements;
 - (iii) where the financial viability of the issuer would be threatened, such as where it is involved in a corporate transaction or capital raising.
- 7.5. When determining whether a suspension or removal is likely to cause significant damage to the investors' interests or the orderly functioning of the market, the Operator shall consider all relevant factors, including:
- (i) the relevance of SIGMA X MTF in terms of liquidity;
 - (ii) the nature of the envisaged action;
 - (iii) the knock-on effects of a suspension or removal of sufficiently related instruments serves as an underlying or constituent;
 - (iv) the effects of a suspension on the interests of market end users who are not financial counterparties, such as entities trading in financial instruments to hedge commercial risks.
- 7.6. The Operator may suspend trading in particular Securities on the SIGMA X Non-Displayed Book, in accordance with the procedures set out in the Participant Manual, where required to ensure trading in such a Security does not exceed the trading volume

limits specified in Art 5(1) MiFIR and referred to in more detail in Section VI.H (*Volume Cap Controls*) of the Participant Manual.

- 7.7. The Operator will disclose the suspension or removal of any Security from trading.
- 7.8. During suspension of any Security on SIGMA X MTF, trade matching in that Security is halted, any Auction occurring in respect of that Security is cancelled and no Transactions shall be executed in a suspended Security. For the avoidance of doubt, following the lifting of a suspension in respect of a Security any outstanding and unexecuted Orders in that Security will proceed to execution in accordance with these Rules.
- 7.9. SIGMA X MTF does not support grey market trading or conditional trading.

- 8.1. Participants are required to identify in relation to each Order such information as the Operator shall require in accordance with Commission Delegated Regulation (EU) 2017/580 supplementing MiFIR with regard to regulatory technical standards for the maintenance of relevant data relating to orders in financial instruments and as specified in the SIGMA X MTF Technical Specifications on the Website. If this information is not included, the Order will be rejected. Participants are solely responsible for every Order submitted by or through the Participant, regardless of the capacity in which the Order was placed.
- 8.2. The Operator may supply any information pertaining to orders generated by algorithmic trading, the different algorithms used for the creation of orders and the relevant persons initiating those orders, upon request and without delay, to the Regulator.
- 8.3. SIGMA X MTF supports trading in a principal or agency capacity. Where a Participant flags an Order as an agency order, the Participant represents that it is submitting such Order in the legal capacity of an agent on behalf of its client.
- 8.4. The Order types that may be submitted on SIGMA X MTF are described further in the Participant Manual. Order types may be added or deleted at the discretion of the Operator. Changes in the Order types will be notified to Participants by Participant Notice.
- 8.5. The Operator will be under no obligation to notify Participants of pending market events or corporate actions which are likely to impact the pricing of Securities.
- 8.6. A Participant shall treat a Security as 'ex' or 'cum' a benefit from the time that Security is marked 'ex' or 'cum' that benefit on the Primary Market.
- 8.7. All Orders are firm and available for execution on SIGMA X MTF in full. A Participant may enter, amend or cancel their own Orders on SIGMA X MTF provided that, in respect of Orders placed on the SIGMA X Auction Book, no Order may be amended or cancelled during an Auction Call Period in respect of the Security to which the Order relates other than as permitted in the Participant Manual. Where a Participant is technically unable to cancel an unexecuted Order submitted on SIGMA X MTF other than those Orders in an Auction Call Period, such Participant may request the Operator to cancel such Order. Further information on Order and Transaction cancellations are set out in Section V (*Market Guide – General*) of the Participant Manual.
- 8.8. SIGMA X MTF will operate during the hours determined by the Operator from time to time and displayed on the Website. Any change in the hours of operation will be notified to Participants by Participant Notice. The hours of operation of SIGMA X MTF will apply to all Orders placed on SIGMA X MTF regardless of the location of the Primary Market of the Securities.
- 8.9. The Operator may reject or cancel an Order in its discretion if it considers that the Order is invalid, incorrect, fraudulent, manipulative or that such action is required to preserve a fair and orderly market on SIGMA X MTF or as otherwise permitted in accordance with Applicable Laws.
- 8.10. When a Security is suspended from trading in accordance with Rule 7 (*Admission, Suspension and Removal of Securities from Trading*), any outstanding and unexecuted Order in that Security will remain unexecuted during such suspension. When a Security is removed from trading in accordance with Rule 7 any outstanding and unexecuted Order will not be executed. In each case, any Auction occurring in respect of the Security

at the time of suspension or removal from trading shall be cancelled and no Orders, in respect of that Security, shall trigger an Auction during such suspension.

- 8.11. When an Order is matched in the SIGMA X Non-Displayed Book a binding contract is immediately formed between the relevant Participants for the sale and purchase of the specified amount of the relevant Security at the price determined by the SIGMA X Non-Displayed Book. Notwithstanding the foregoing, the Operator retains the right, at all times, to break such Transactions pursuant to Rule 9.5 (*Erroneous Trades*) and/or Rule 10.2 (*Trading Halts*).
- 8.12. Whilst an Order may be matched during an Auction Call Period, a binding contract between the relevant Participants for the sale and repurchase of the specified amount of the relevant Security at the price determined by the SIGMA X Auction Book is only formed at the Auction Uncross. Notwithstanding the foregoing, the Operator retains the right, at all times, to break such Transactions pursuant to Rule 9.5 (*Erroneous Trades*) and/or Rule 10.2 (*Trading Halts*).
- 8.13. In respect of business conducted on SIGMA X MTF or business related thereto, a Participant shall be subject to such trading controls as are specified in Section V (*Market Guide – General*) of the Participant Manual. Furthermore, Participants shall be responsible for the acts and conduct of all individuals trading under its user account as if the acts and conduct of each of those persons were the acts and conduct of the Participant. In particular, a Participant shall be held responsible for a violation of a relevant obligation committed by any such person and the Operator may take measures under these Rules and relevant agreements, including the suspension or termination of the Participant.

- 9.1. In the event of a trading error a Participant may apply to SIGMA X MTF to have an executed Transaction cancelled and declared an erroneous trade in accordance with Section V (*Market Guide – General*) of the Participant Manual.
- 9.2. All erroneous trade applications must be communicated by the relevant Participant to SIGMA X MTF in accordance with the procedure set out in the Participant Manual.
- 9.3. Participants may not withdraw an erroneous trade application without the written consent of the counterparty to the Transaction.
- 9.4. Participants must provide the Operator with any supporting information surrounding the Transaction to enable the Operator to determine that there has been an erroneous trade.
- 9.5. The Operator may in its absolute discretion, acting reasonably, delete an accepted Order, and retrospectively break executed Transactions where it believes such Transactions are erroneous, invalid, deceptive, fraudulent or may impair the integrity of SIGMA X MTF, or in case of malfunction of SIGMA X MTF's mechanisms to manage volatility or of the operational and technical functions of the trading system, including issues related to the finalization, clearing and settlement process for Transactions executed on SIGMA X MTF, whether or not a Participant has made an application to have such Transaction declared an erroneous trade. The Operator shall not be liable for any losses suffered by the Participant if an accepted Order is deleted or a Transaction is broken retrospectively pursuant to this Rule.
- 9.6. The Operator will notify all parties to the Transaction of its decision to take any action under Rule 9.5 (*Erroneous Trades*).

10. TRADING HALTS

- 10.1. In addition to, and without prejudice to the extent of, its powers under Rule 7 (*Admission, Suspension and Removal of Securities from Trading*), the Operator may suspend trading on SIGMA X MTF in:
- (v) Securities which fall within a specific industry group;
 - (vi) Securities which fall within a geographical sector or are listed on a specified Primary Market; or
 - (vii) the whole SIGMA X MTF market,
- where it considers in its absolute discretion that such suspension is required to maintain a fair and orderly market on SIGMA X MTF.
- 10.2. In the event of suspension or limitation on trading in a Security on SIGMA X MTF or on its Primary Market, disruption or malfunction in the use or operation of any electronic communications, trading facilities or price determination functions of SIGMA X MTF, failure of the Central Counterparty or other unusual market conditions or circumstances (each as determined by the Operator), including price volatility in the Security, the Operator may decide to cancel all or any outstanding and unexecuted Orders, cancel all or any Auctions, and reverse or break all or any Transactions executed during the affected period. The Operator will notify any Participants affected by its decision by Participant Notice.
- 10.3. In case the Operator suspends trading as per this Section 10, the Operator shall immediately disclose it via SIGMA X Ap Market Data feed, including information on the type of trading halt, the trading phase in which it was triggered, the extension of the halt and the end of the halt.

11. SETTLEMENT

- 11.1. A Participant must procure the settlement of all Transactions in accordance with the rules and customs of the relevant Primary Market and pursuant to any procedures established by the Central Counterparty. For the avoidance of doubt, the settlement date for all Transactions shall be no later than on the second business day after the trade date, where so required under Regulation (EU) 909/2014 (the Central Securities Depositories Regulation).
- 11.2. In the event of settlement default, the relevant rules of the Central Counterparty will apply and a Participant must comply with such rules.

12. ORDER PRIORITY AND INTERNALISATION AND SELF-CROSS PREVENTION SERVICES

- 12.1. Orders submitted to the SIGMA X Non-Displayed Book are prioritised for quantity allocation on the basis of quantity and time. When Orders are submitted to the SIGMA X Non-Displayed Book, Orders with a larger quantity will be prioritised for quantity allocation ahead of other competing Orders. In the event that competing Orders have an equal quantity, the Order with the earliest assigned timestamp will be given priority.
- 12.2. Orders submitted to the SIGMA X Auction Book are prioritised as follow:
- (i) Orders received prior to the Auction Call Period are prioritised on the basis of price, size and time; and
 - (ii) Orders received during the Auction Call Period are prioritised on the basis of time only;
- in both cases, where the Auction Call Period is in respect of the Security to which the Orders relate.
- 12.3. Once the executable quantity of an Order submitted to either the SIGMA X Non-Displayed Book or the SIGMA X Auction Book has been allocated for execution, trade generation commences, subject to the internalisation service or self-cross prevention service, if applicable.
- 12.4. In addition, Participants may elect in the application form to make use of SIGMA X MTF's internalisation service or self-cross prevention service. It is not possible for a Participant to use both services.
- 12.5. Once quantity allocation has been processed as described in Rule 12.1 or 12.2 (on the basis of quantity and time prioritisation), if a Participant has elected to make use of the SIGMA X MTF internalisation service, trade generation will take place between their own Orders instead of matching against Orders from other Participants, resulting in Internalisation. Internalised trades will not be submitted to the Central Counterparty for clearing and settlement but rather will be netted internally by the relevant Participant.
- 12.6. The self-cross prevention service allows Participants that have elected to use the service to prevent two orders from the same Participant member code from matching against themselves.
- 12.7. An explicit modification to the quantity of an Order may result in the loss of priority for such Order in accordance with the Order prioritization sequencing in Rule 12.1 or 12.2 above (as applicable). However, an implicit modification to the quantity of an Order due to an initial partial execution will not result in the loss of priority.

13.1. A Participant must not:

- (i) engage in any type of behaviour which gives or is likely to give false or misleading signals as to the supply of, demand for or price of any Security, or which secures or is likely to secure the price of one or several Securities at an abnormal or artificial level;
- (ii) enter into transactions on SIGMA X MTF or enter Orders which employ fictitious devices or any other form of deception or contrivance;
- (iii) engage in any other behaviour or practices on SIGMA X MTF that would or are likely to be in contravention of MAR or any successor legislation thereto;
- (iv) engage in any type of behaviour which may, in the Operator's sole determination, adversely affect fair and orderly trading on SIGMA X MTF or harm the integrity or reputation of SIGMA X MTF, including but not limited to impacts to the overall execution quality of Transactions for Participants;
- (v) commit any act or engage in any behaviour which causes or contributes to a breach of these Rules by another Participant;
- (vi) engage in behaviour for the purpose of testing any system used by the Participant to facilitate or support business transacted on SIGMA X MTF except where Orders are marked as test Orders; or
- (vii) engage in behaviour that may cause system disruptions in relation to financial instruments.

13.2. The Operator may monitor the orders, including cancellations, and transactions undertaken by Participants on SIGMA X MTF in order to identify breaches of these Rules, disorderly trading conditions or conduct which may involve market abuse.

13.3. The Operator may report any significant breaches of these Rules, disorderly trading conditions, system disruptions or conduct which may involve market abuse to the FCA. The Operator may also supply any relevant information without delay to the Regulator responsible for the investigation and prosecution of market abuse and may provide full assistance to the Regulator in investigating and prosecuting market abuse occurring on or through SIGMA X MTF.

14. INFORMATION AND RECORD KEEPING

- 14.1. The Operator may require a Participant to disclose information or produce documents in the Participant's possession, custody or control relevant to business on SIGMA X MTF in a format specified by the Operator for the purpose of investigating compliance with these Rules, except where such disclosure is prohibited by Applicable Law.
- 14.2. Each Participant must provide all reasonable assistance to the Operator and its delegates regarding the investigation of a possible breach of these Rules, which assistance may include providing access to information and individuals reasonably within the control of the Participant.
- 14.3. The Operator may disclose information which would identify a Participant as the specific source of that information to any regulatory body (including but not limited to any Regulator) for any reason, or when such disclosure is required by Applicable Law. The Operator may also disclose such information where necessary to facilitate clearing or settlement of trades on SIGMA X MTF.
- 14.4. The Operator may from time to time, in its discretion, publicly publish and/or disclose to any person:
 - (i) the list of the Participants together with appropriate contact details;
 - (ii) the list of the Participants that have resigned, been terminated or suspended; and
 - (iii) the reasons for the decision to suspend or terminate a Participant when this is necessary to safeguard the Operator's reputation.
- 14.5. The Operator will keep records of all Orders for at least (5) five years in accordance with its obligations.

15. NOTIFICATIONS

- 15.1. A Participant must notify the Operator of the occurrence of any of the following events immediately upon becoming aware of the occurrence of the event:
- (i) any breach of these Rules or any event, act or omission which may affect the ability of the Participant to comply with these Rules;
 - (ii) any other action or omission by the Participant or by any other Participant which may impair a fair and orderly market on SIGMA X MTF;
 - (iii) any litigation or enforcement action which could impair or restrict the Participant's ability to comply with these Rules, unless such disclosure is prohibited by law or any relevant Regulator;
 - (iv) an Act of Insolvency occurring in respect of the Participant;
 - (v) any failure to comply with a provision of the Participant Manual;
 - (vi) a proposed change in the name, registered office or legal/regulatory status of the Participant;
 - (vii) a significant change in the Officers of the Participant;
 - (viii) if the Participant ceases to be a clearing member of the Central Counterparty for any reason, or otherwise changes its clearing and settlement arrangements;
 - (ix) any application or notification to a Regulator in relation to direct or indirect change in ownership or control of the Participant; or
 - (x) any other significant events or matters which the Operator might reasonably expect to have brought to its attention.
- 15.2. Participants must make any notification under this Rule 15 (*Notifications*) in writing to the Compliance Officer.

16. COMPLAINTS AND DISPUTES

- 16.1. If a Participant has a complaint relating to the operation of SIGMA X MTF or the provision of the Services by the Operator, the Participant should contact the COO, the complaints management function for SIGMA X MTF. Contact details for the COO are available on the Website.
- 16.2. The COO will consider the complaint and respond to the Participant who submitted the complaint without undue delay.
- 16.3. The COO will maintain appropriate records of any complaints submitted to them either verbally or in writing, including details of the complaint and how it was resolved. Further details of the complaints handling process can be found in GSIB's complaints management policy which is available upon request.
- 16.4. Participants must submit any complaint relating to the conduct of business on SIGMA X MTF by another Participant in writing to the Compliance Officer. Contact details for the Compliance Officer are available on the Website.
- 16.5. The Compliance Officer will consider any complaints and respond to the Participant who submitted the complaint within a reasonable time. The Compliance Office may request from either Participant any information reasonably necessary to decide the appropriate action to take to resolve the complaint.
- 16.6. In the event that a dispute between an Applicant or Participant and the Operator arises out of or in connection with these Rules and the Participant Agreement, such dispute shall be referred to and finally be resolved by arbitration in England conducted in English by three arbitrators pursuant to the rules of the LCIA, which rules are incorporated by reference into this Rule 16 (*Complaints and Disputes*), save that, unless the parties agree otherwise:
 - (i) the third arbitrator, who shall act as chairman of the tribunal, shall be nominated by the two arbitrators nominated by or on behalf of the parties. If he is not so nominated within thirty (30) calendar days of the date of nomination of the later of the two nominated arbitrators to be nominated, he shall be chosen by the LCIA; and
 - (ii) neither party shall be required to give general discovery of documents, but may be required only to produce specific, identified documents, which are relevant to the dispute.

17. DISCIPLINARY POWER AND SANCTIONS; APPEALS

- 17.1. In relation to any act or omission by a Participant which may constitute a breach of these Rules, the Operator may take such disciplinary action against that Participant as it may in its discretion consider appropriate for the purpose of maintaining fair and orderly trading and efficient execution of Orders on SIGMA X MTF including:
- (i) temporary suspension from SIGMA X MTF;
 - (ii) termination of participation in SIGMA X MTF; or
 - (iii) private censure of the Participant.
- 17.2. In addition to taking disciplinary action against the Participant, the Operator may also report the behaviour of the Participant to any relevant Regulator.
- 17.3. The Operator may in its absolute discretion suspend or terminate participation by a Participant where the Operator reasonably considers such suspension or termination necessary, in its sole discretion, to ensure fair and orderly trading on SIGMA X MTF and/or to uphold the integrity or reputation of SIGMA X MTF including to prevent detriment to the overall execution quality of Transactions for Participants and/or to comply with Applicable Laws of if so required by any relevant Regulator.
- 17.4. The Operator will notify a Participant in writing within a reasonable time of its decision under this Rule 17 (*Disciplinary Power and Sanctions; Appeals*), including a decision not to take action against the Participant. The Operator will state in its notice the date on which the decision shall become effective.
- 17.5. A Participant may appeal a decision made by the Operator under this Rule 17 (*Disciplinary Power and Sanctions; Appeals*) giving its reasons for appealing and any information relevant to the appeal. Any appeal must be made in writing and submitted to the Operator within a reasonable time of receiving written notice of the Operator decision. The Appeals Officer will consider de novo the decision of the Operator which is the subject of the appeal and the relevant Participant will be notified in writing within fourteen (14) calendar days of any decision reached in relation to the appeal.
- 17.6. A Participant whose participation has been suspended or terminated shall remain subject to these Rules in respect of acts and omissions while it was a Participant and shall comply with any request for information in relation to the period of its participation which the Operator may make at any time following the termination of its participation.
- 17.7. A Participant whose participation has been suspended or terminated will also remain subject to these Rules in respect of any outstanding obligations under these Rules until such obligations are satisfied.
- 17.8. Appeals will be heard and decided by the Appeals Officer.
- 17.9. The Appeals Officer may uphold, overturn or amend the decision of the Operator that is the subject of the appeal. The decision of the Appeals Officer in relation to appeals shall be final.
- 17.10. Notwithstanding anything stated to the contrary herein, any matters referred to the Oversight Group or to the Appeals Officer will have the identity of the Participant redacted.

18. AMENDMENTS TO THESE RULES AND TO SIGMA X MTF

- 18.1. The Operator may, in its absolute discretion, materially change these Rules by prior notice to Participants at any time. Unless otherwise required by a regulatory body (including a Regulator) or by Applicable Law, amendments to these Rules shall not apply retrospectively and the Operator will give Participants at least ten (10) calendar days' notice before such change comes into force.
- 18.2. Where the Operator deems it appropriate to do so, it shall consult with Participants in advance of making material changes to the Rulebook. Any such consultation process will be notified to Participants via a Participant Notice.
- 18.3. The Operator may make non-material changes to these Rules without prior notice to Participants.
- 18.4. All amendments to these Rules will be notified to Participants via Participant Notice, and be effective at such time as specified in the relevant Participant Notice.
- 18.5. The Operator may, in its absolute discretion without notice to Participants, make amendments to SIGMA X MTF or to any of the Services, provided that:
 - (i) the Operator must give thirty (30) calendar days' notice to Participants prior to making any material amendments to, suspending or withdrawing SIGMA X MTF or any of the Services; and
 - (ii) the Operator may make any amendments to, suspend or withdraw SIGMA X MTF or any of the Services immediately without notice to Participants where requested by a regulatory body or when required by Applicable Law.

- 19.1. Participants are responsible for determining whether any tax liability may arise from their Transactions, and for applying for any relevant exemption from such taxes. Participants are solely liable for the payment of any taxes payable in relation to their Transactions.
- 19.2. Participants are responsible for determining whether the Takeover Panel levy is applicable to any Transaction, and the rate at which it is payable. Participants are solely liable for payment of the Takeover Panel levy.

- 20.1 Goldman Sachs International Bank acts as the Operator of SIGMA X MTF. It is not and will not be a Participant of SIGMA X MTF. However, its Affiliates may be Participants of SIGMA X MTF, subject to satisfying the eligibility criteria and other rules set out in these Rules. Goldman Sachs International Bank has put in place internal procedures in order to manage appropriately any resulting conflicts of interest.
- 20.2 Goldman Sachs International Bank is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, and has been authorised to operate SIGMA X MTF.

- 21.1. Without prejudice to any provisions of other documents which are expressed to survive termination of a Participant's participation, Rules 16 (*Complaints and Disputes*) and 17 (*Disciplinary Power and Sanctions; Appeals*) will survive termination of a Participant's participation on SIGMA X MTF.
- 21.2. These Rules and all non-contractual or other obligations arising out of or in connection with them are governed by and shall be interpreted in accordance with the laws of England and Wales.