International Financial Services Centres Authority

January 21, 2026

Consultation Paper

On

Guidelines for Algorithmic Trading on the Stock Exchanges

Objective

1. The objective of this consultation paper is to seek comments and suggestions from the market participants and wider public on the proposed guidelines for algorithmic trading on the stock exchanges in IFSC.

Background

2. Algorithmic trading has emerged as a dominant force on the stock exchanges worldwide, driven by the use of powerful computer programs and machine learning. These systems, also known as algo-trading or black-box trading, execute orders based on a predefined set of instructions, often at speeds and frequencies impossible for human traders.

3. Algorithmic trading may involve the use of basic algorithms to feed portions of an order into the market based on basic parameters such as price, volume and time. At its most complex, it may entail many algorithms that are able to assimilate information from multiple markets in different assets and to use this to implement a high-speed, multi-asset trading strategy that transacts numerous inter-related trades in fractions of a second[1].

4. Algorithmic trading has come to the forefront in the first decade of the current century and has witnessed various levels of regulatory enablers and restrictions.

Need for Regulating Algorithmic Trading

5. Due to the speed and potential for market disruption, regulators worldwide have established various frameworks to regulate algorithmic trading.

6. Algorithmic trading poses potential risks to market stability and integrity. Some of these risks are outlined below:

[1] IOSCO Report on Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency (2011)

i. Increased market volatility – During events of market stress when the liquidity evaporates, the algorithms that deploy high frequency trading strategies can amplify volatility and may even cause market wide disruptions.

ii. Market manipulation – Faster access to information enabled by co-location and faster execution of orders using sophisticated algorithms and infrastructure, may create information asymmetry and entice traders to deploy market manipulation tactics such as order spoofing.

iii. Operational risk – Greater dependency on computer systems can open doors to system failures due to misconfigurations, latency issues, or code bugs, and may eventually result in runaway trading or system disruptions. Unchecked algorithms can cause systemic risks, such as flash crashes, affecting overall financial stability.

iv. Opacity and complexity – Complex and sophisticated algorithms can become opaque, making it difficult for the regulator and market participants to understand decisions. This may act against the goal of achieving high levels of transparency in the market.

7. Therefore, algorithmic trading requires proper regulation and supervision to ensure market integrity and prevent market manipulation through infrastructure, speed or access advantages.

   The aim of this consultation paper is to seek a balance between the benefits of algorithmic trading with the need to safeguard the capital market against systemic risks and ensure market integrity. The guidelines envisaged by IFSCA seek to promote transparency, accountability, and mitigate risks posed by the use of algorithms in trading on the stock exchanges.

Approach of IFSCA

8. The fundamental principles of market integrity and stability have been ensured in the draft guidelines in the following manner:

   a. Accountability

      To fix the accountability for orders generated using algorithms, the stock exchanges are being directed to tag such orders to ensure audit trail. Stock exchanges are also empowered to take appropriate penal measures to deter any attempt of market manipulation.

   b. Transparency

      The traders must mandatorily disclose their trading algorithms to the stock exchanges and get approval for deploying them. Furthermore, the members of the stock exchanges which provide algorithmic trading facility are subjected to system audit for ensuring adherence to the guidelines.

   c. Stability

      There is a minimum level of risk control stipulated in the guidelines. The stock exchanges are directed to periodically review their surveillance capabilities to detect dysfunctional algorithms or manipulative strategies and shut down the terminals of traders in case of exigencies. The stock exchanges are also directed to study their system capabilities and ensure robust systems to withstand any adversarial event arising from algorithmic trading to avoid instances of market outages.

Public Comments

9. In view of the above, comments from the public and the stakeholders are invited on the proposed circular on "Guidelines for Algorithmic Trading on the Stock Exchanges" as placed at **Annexure** below. The comments may be sent by email to Shri Praveen Kamat, General Manager, Capital Markets Department, at praveen.kamat@ifsca.gov.in and Shri Priyansh Raj Purohit, Assistant Manager at priyansh.purohit@ifsca.gov.in , with the subject line "Comments on draft Guidelines on Algorithmic Trading", latest by **February 11, 2026**.

The comments should be provided in the following format:

Name and Designation				
Contact No. and Email address				
Name of Organisation				
S. No.	**Para No.**	**Text of the Guidelines**	**Comments/ Suggestions/ Suggested modifications**	**Detailed Rationale**

Annexure

CIRCULAR

To,

All the Stock Exchanges in the International Financial Services Centre (IFSC)
All the Broker-Dealers in the IFSC
All the Remote Trading Participants (RTPs) onboarded by the Stock Exchanges in the IFSC

Dear Sir/ Madam,

Subject: Guidelines for Algorithmic Trading on the Stock Exchanges

1. To facilitate orderly development of trading on the stock exchanges in IFSC and to safeguard market integrity without compromising the operational flexibility of the stock exchanges, IFSCA is issuing new guidelines on algorithmic trading. These guidelines are designed to enhance market participation and increase market depth.

Definition

2. This circular uses specific terms that are defined below. Unless the context suggests otherwise, these terms and any related expressions should be understood as having these assigned meanings.

   a) "Algorithmic Trading" means trading in securities listed on a stock exchange, where a computer algorithm automatically determines individual parameters of orders such as:
      i. placement of order,
      ii. timing,
      iii. price or
      iv. quantity of the order or

v. any subsequent modification in these parameters, with limited or no human intervention

Explanation

Algorithmic Trading does not include any system that is only used for the purpose of:

i. routing orders to one or more trading platforms;
ii. processing of orders;
iii. confirmation of orders;
iv. post-trade processing of executed transactions; or
v. any combination of the above, involving no determination to any trading parameters.

b) "Algorithmic Trading System" means the entirety of hardware, software, procedures and processes used in the execution of Algorithmic Trading;

c) "Trading Algorithm" means a computer algorithm used in Algorithmic Trading;

d) "Dysfunctional Trading Algorithm" means a Trading Algorithm that malfunctions and operates in an unintended way, including those leading to a loop or runaway situation;

e) "Algorithmic Trading Order" means any order including any of its subsequent modifications, generated through the process of Algorithmic Trading;

f) "Market Participants" means and includes all broker-dealers registered with IFSCA and all RTPs onboarded by the stock exchange(s);

General Responsibilities of the Stock Exchange

3. The stock exchange shall have arrangements, procedures and system capabilities in place to manage the load on its system to achieve consistent response time for all market participants.

4. The stock exchange shall synchronize its system clock with the atomic clock before the start of the market such that its clock has :
   - precision of at least one microsecond and
   - accuracy of at least +/- one millisecond.

5. The stock exchange may consider requisite changes in tick sizes to ensure the effective application of price-time priority or any other order matching system protocol followed by the stock exchange.

6. The stock exchange shall continuously study the performance of its systems and, if necessary, undertake system upgradation, in order to keep pace with the speed of trade and volume of data that may arise through Algorithmic Trading.

7. The stock exchange shall ensure that a market participant shall provide the facility of or itself undertake Algorithmic Trading, only with the prior permission of the stock exchange.

8. The stock exchange shall, either on its own or through an independent system auditor/ third-party, subject the systems of the market participant to initial conformance tests to ensure that the risk control checks mentioned below are in place and that the market participant's Algorithmic Trading System facilitates orderly trading and market integrity.

9. For market participants already providing Algorithmic Trading, the stock exchange shall, either on its own or through an independent system auditor/ third-party, subject the Algorithmic Trading Systems of such market participants to initial conformance tests within three months of the date of issuance of this circular.

10. The stock exchange, if required, shall seek conformance of modified Algorithmic Trading Systems to the requirements specified in these Guidelines.

11. The stock exchange shall periodically test the Trading Algorithms (in isolation and as together) in simulated market environments, to ascertain:

    i. the behaviour of Trading Algorithms in conditions of market stress,

    ii. the dependence of Trading Algorithms on market data feeds and behaviour in case of disruptions/ failure of timely market data feeds,

    iii. the kill switch/ triggers for liquidity withdrawal for Trading Algorithms, or

    iv. any other behaviour of the Trading Algorithms or Algorithmic Trading Systems relevant for orderly trading and market integrity,

    and accordingly update its mechanisms for grant of permission for Algorithmic Trading, initial conformance tests, mechanisms of surveillance, etc.

e) The stock exchange, if necessary, may refuse permission to any Trading Algorithm or class of trading strategies or seek modifications in any Trading Algorithm for the purpose of orderly trading and market integrity.

Provided that in the case of such rejections or modifications, the stock exchange shall inform IFSCA, along with detailed rationale.

Risk Management

12. The stock exchange shall maintain appropriate risk control mechanisms to address the risks emanating from Algorithmic Trading and Algorithmic Trading Orders. The minimum order-level risk controls shall include the following:

a) Price check

The price quoted by the Algorithmic Trading Order shall not violate the price bands defined by the exchange for that security. For securities that do not have price bands, dummy filters shall be put in place to serve as an early warning system to detect sudden surge in prices.

b) Quantity Limit check

The quantity quoted in the order shall not violate the maximum permissible quantity per order as defined by the exchange for a given security.

13. The other risk management checks already put in place by the stock exchange shall continue to apply and the stock exchange may re-evaluate such checks, if deemed necessary.

14. The market participant, desirous of placing orders generated using Algorithmic Trading Systems, shall satisfy the stock exchange with regard to the implementation of the following minimum level of risk controls at its end: –

- Price check
  Algorithmic Trading Orders shall not be released in breach of the price bands defined by the stock exchange for a given security.

- Quantity check
  Algorithmic Trading Orders shall not be released in breach of the quantity limit as defined by the stock exchange for a given security.

- Order Value check
  Algorithmic Trading Orders shall not be released in breach of the 'value per order' as defined by the stock exchange for a given security.

- Cumulative Open Order Value check
  The individual client level cumulative open order value check may be prescribed by the market participant for the clients. Cumulative Open Order Value for a client is the total value of its unexecuted orders released from the market participant's Algorithmic Trading System.

- Automated Execution check

  A Trading Algorithm shall account for all executed, un-executed and unconfirmed orders, placed by it before releasing further order(s). Additionally, the Algorithmic Trading System shall have pre-defined parameters for an automatic stoppage in the event of Trading Algorithm execution leading to a loop or a runaway situation.

15. The market participant, desirous of placing orders generated using Algorithmic Trading, shall submit to the respective stock exchange, an undertaking that-

- The market participant has proper procedures, systems and technical capability to carry out Algorithmic Trading.

- The market participant has procedures and arrangements to safeguard Trading Algorithms from misuse or unauthorized access.

- The market participant has real-time monitoring systems to identify Trading Algorithms that may not behave as expected. The market participants shall immediately inform the stock exchange of such incidents.

- The market participant shall maintain logs of all trading activity to ensure a clear and verifiable audit trail. The market participant shall maintain a record of control parameters, orders, trades and data emanating from trades executed through Algorithmic Trading.

- The market participant shall inform the stock exchange of any modification or change to the approved Trading Algorithms or Algorithmic Trading System.

Audit Trail of Algorithmic Trading Orders

16. The stock exchange shall ensure that all Algorithmic Trading Orders are tagged with unique identifiers so as to ensure a comprehensive, clear and verifiable audit trail of orders arriving at its system, up to the level of individual market participant.

17. The market participant shall ensure that all Algorithmic Trading Orders are tagged with unique identifiers so as to ensure a comprehensive, clear and verifiable audit trail of orders arriving at its system, up to the level of individual client and Trading Algorithm.

Framework of Economic Disincentives

18. The stock exchange shall have the operational flexibility to implement a framework of financial disincentives with regard to high daily Order-to-Trade Ratio (OTR) of orders placed through Algorithmic Trading Systems. These disincentives may be penalties in the form of 'Charges to be levied per Algorithmic Trading Order' at various levels of daily OTR. The penalty rates specified shall provide sufficient deterrence against order flooding or any other form of market manipulation or disruption.

    To deter persistent Order-to-Trade Ratio (OTR) violations, the stock exchange, if deemed necessary, may suspend a market participant's proprietary trading privileges for the opening hour of the following session. This escalation shall apply if a participant incurs OTR related penalties on more than ten occasions within a rolling thirty-day window.

19. Further, the stock exchange shall put in place monitoring systems to identify and initiate measures to impede any possible instances of order flooding by Algorithmic Trading.

Surveillance by the Stock Exchange

20. The stock exchange shall put in place a system to identify Dysfunctional Trading Algorithms and take suitable measures, including advising the market participant to shut down such Dysfunctional Trading Algorithms and remove any outstanding orders in the system entered by such Dysfunctional Trading Algorithms. Further, in case of any exigency, the stock exchange shall shut down the market participant's trading terminal.

21. The terminals of the market participants that were disabled due to exhaustion of collaterals shall be re-enabled through manual intervention in accordance with the risk management procedures of the stock exchange.

22. In order to further strengthen the surveillance mechanism related to Algorithmic Trading and prevent market manipulation, the stock exchanges are directed to take necessary steps to ensure effective monitoring and surveillance of orders and trades resulting from Algorithmic Trading Systems.

23. The stock exchange shall periodically review its surveillance arrangements to detect and investigate market manipulation and market disruptions and implement improvements or modifications wherever necessary.

System Audit

24. The market participants that provide the facility of Algorithmic Trading shall subject their Algorithmic Trading Systems to a system audit annually to ensure that the requirements prescribed by IFSCA/ stock exchange with regards to Algorithmic Trading are effectively implemented.

25. Such a system audit of an Algorithmic Trading System shall be undertaken by a System Auditor who possesses any of the following certifications:

    a. CISA (Certified Information Systems Auditor) from ISACA;
    b. DISA (Post Qualification Certification in Information Systems Audit) from Institute of Chartered Accountants of India (ICAI);
    c. CISM (Certified Information Securities Manager) from ISACA;
    d. CISSP (Certified Information Systems Security Professional) from International Information Systems Security Certification Consortium, commonly known as (ISC).

    Provided that any auditor having least 10 years of experience in auditing Algorithmic Trading Systems shall also be qualified to undertake the system audit.

26. A system auditor can perform a maximum of three successive system audits of the Algorithmic Trading System of a market participant.

    Provided that, such system auditor shall be eligible for re-appointment only after a cooling off period of two years.

27. Deficiencies or issues identified during the process of system audit of Algorithmic Trading System shall be reported by the market participant to the stock exchange

immediately upon, and in any case no later than one month from the completion of the system audit.

28. The market participant shall take immediate corrective actions to rectify the deficiencies/ issues identified during the process of system audit and furnish the closure report on identified deficiencies/ issues within a period of two months from the completion of system audit.

29. In case of serious deficiencies/ issues or failure of the market participant to take satisfactory corrective action, the stock exchange shall not permit the market participant to use the Trading Algorithm/ Algorithmic Trading System till the identified deficiencies/ issues are rectified and a satisfactory system audit report, confirming the same, is submitted to the stock exchange.

30. The stock exchange may also consider imposing suitable penalties in case of failure of the market participant to initiate satisfactory corrective action to its Algorithmic Trading System within such a time period as may be specified by the stock exchange.

Periodic Monitoring

31. The stock exchange may seek details of trading strategies used by the market participants through Algorithmic Trading Systems for such purposes viz. inquiry, surveillance, investigation, etc.

32. The stock exchange shall include a report on Algorithmic Trading on the stock exchange in the Monthly Development Report (MDR) submitted to IFSCA, *inter-alia*, incorporating the following:

- turnover details of Algorithmic Trading,
- Algorithmic Trading as percentage of total trading,
- number of market participants using Algorithmic Trading,
- action taken in respect of Dysfunctional Trading Algorithms,
- results of tests in simulated market environments,
- status of grievances, if any, received and processed, etc.

Implementation of this Circular

33. The stock exchanges are directed to:

    a. Take necessary steps and put in place requisite systems for implementation of these Guidelines within a period of three months from the date of issuance of this circular.

b. Make necessary amendments to the relevant bye-laws, rules and regulations for the implementation of the above circular.

c. Bring the provisions of this circular to the notice of its market participants and also disseminate the same through its website.

d. For market participants that are currently executing orders through Algorithmic Trading, a period of three months is provided to the stock exchanges within which the approval process shall be required to be completed, and minimum risk controls shall be established.

e. Communicate to IFSCA, the status of implementation of the provisions of this circular in the MDR.

34. This circular is issued in exercise of powers conferred by Section 12 and 13 of the International Financial Services Centres Authority Act, 2019, read with Regulation 72 of the IFSCA (Market Infrastructure Institutions) Regulations, 2021, and shall come into force with immediate effect.

Repeal and Savings

35. (1) On and from commencement of this circular, SEBI Circular No. CIR/MRD/DP/09/2012 dated March 30, 2012, and SEBI Circular No. CIR/MRD/DP/16/2013 dated May 21, 2013, shall stand superseded.

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