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ALGO TRADING: REGULATORY FRAMEWORK, SEBI PROPOSALS AND MARKET CONCERNS

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The growth of Algorithmic Trading (or Algo Trading) can be attributed to the large financial institutions of the world. A report submitted by the National Institute of Financial Management (NIFM) to the Department of Economic Affairs (DEA), Ministry of Finance¹, stipulates that around 50% plus of total orders at both National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) are algo trades on the client side and around 40% plus are trades on the prop side. Further, more than 80% of such orders are generated from colocation at both the exchanges..

On the positives, algo trading has not only improved buy-sell imbalance and transaction costs, it has also facilitated price discovery and enhanced liquidity in the market. Antithetical to the foregoing, it has also, at times, led to systemic risks of market manipulation, amplified short-term volatility and higher trading costs.

SEBI and the two exchanges have been coming out with proposals and measures from time to time for regulating and monitoring algo trading. The objective is to reap its benefits by minimising the risks involved in the act.

WHAT IS ALGO TRADING?

Algo trading is any order generated using automated execution logic [Ref. Circular No. MRD/DP/09/2012, dated March 30, 2012]. It has also been defined as a step-by-step instruction for trading actions taken by computers (automated systems) [Ref. 'Discussion paper on Strengthening of the Regulatory framework for Algorithmic Trading & Co-location', dated August 5, 2016]. To simply put, algo trading uses defined programs (or algorithms) to generate and place orders on matching of pre-fed rules and strategies. Every time the algo generates a signal based on the matched criteria, an order automatically gets punched without any manual intervention.

INDIAN REGULATORY FRAMEWORK

The inception of algo trading in India can be attributed to the circular released by SEBI in 2008 permitting the direct market access (DMA) facility to the institutional investors whereby the brokers could offer their respective clients, direct access to the exchange trading system through broker's infrastructure without manual intervention by the broker. Subsequently, SEBI, vide its Circular *No. MRD/DP/09/2012*, dated March 30, 2012 (SEBI 2012 Circular), issued guidelines on algo trading for the first time.

SEBI 2012 Circular mandated the stock exchanges to have arrangements, procedures and system capabilities to manage load in order to achieve consistent response time for all the brokers. The stock exchanges were, *inter alia*, instructed that algo orders should be routed through broker servers and that there should be appropriate risk control mechanisms to address any risk stemming from such orders and trades. It was also directed that stock brokers would procure prior permission of the stock exchange in order to provide algo trading facility to its clients. Additionally, such stock brokers would need to have minimum levels of risk controls with regard to price, quality, order value, cumulative open order value and automated execution checks.

On August 5, 2016, SEBI released a Discussion Paper on 'Strengthening of the Regulatory framework for Algorithmic Trading & Co-location' (SEBI 2016 Discussion Paper) whereunder it proposed various mechanisms to deal with the issue of unfair and inequitable access being provided to the trading systems of the exchanges. The proposals, inter alia, included 'minimum resting time mechanism' where the orders received by the stock exchange would not be permitted to be amended or cancelled before a specified amount of time; 'frequent batch auctions' where buy and sell orders would only match after getting accumulated on the order book for a particular length of time; and 'review of Tick-by-Tick (TBT) data feed' where it was suggested that structured data would be provided to all the market participants at a prescribed time interval or as a real-time feed.

Thereafter, vide Circular No. SEBI/HO/MRD/DP/CIR/P/2018/62, dated April 09, 2018, SEBI, *inter alia*, introduced measures such as 'Managed Co-location Services' where the racks in the co-location facility would be allotted to eligible vendors by the exchange for receiving market data to further disseminate the same to their client members and to place orders (algo / non-algo) by such client members; 'Free of Charge TBT Feed' where all the trading members would receive TBT feeds free of cost; 'allotment of unique identifier' by stock exchanges to each algorithm approved by them; and provision of 'simulated market environment for testing of software' including algos.

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RECENT PROPOSALS BY SEBI

SEBI, on December 09, 2021, issued a consultation paper on 'Algorithmic Trading by Retail Investors' (SEBI 2021 Discussion Paper) proposing changes in the mechanism of algo trading done by retail investors, including use of Application Programming Interface (API) and automation of trades using API.

It was observed that the investors were using API access provided by the stock brokers for automation of their trades. Further, the online curated platforms which either let the investors create their own strategies or provide ready-made applications were further promoting such automation. Resultantly, though the brokers had been able to identify the orders generating from an API, they were unable to distinguish between an algo and a non-algo order. Moreover, the algo strategies provided by such platforms did not have requisite approvals from the respective stock exchanges.

The SEBI 2021 Discussion Paper addresses the above concerns by classifying all orders emanating from an API as algo orders, subject to respective stock broker's control with all such APIs having a unique algo ID provided by the respective stock exchange. Further, it proposes that the stock brokers would take approval of all such algos from the exchange and that the algos would run on the servers of broker.

The brokers have been given the liberty to either provide in-house algo strategies or outsource it to third-party algo providers pursuant to entering into formal agreements with such providers. Furthermore, the broker would be responsible for such algos and redressal of any investor disputes.

In addition, the paper highlights the need for clarity on whether the services provided by third-party algo vendors are in the nature of investment advice and thereby proposes for the brokers to requisition details from the clients of the services being provided by such service providers to such clients as well as a confirmation on whether such services tantamount to investment advisory services.

Following the above discussion paper, SEBI issued a Press Release last month [*Ref. PR No. 20/2022, dated June 10, 2022*] whereby it again raised its concerns with regard to the algo trading services being offered by unregulated platforms and cautioned retail investors against strategies claiming huge investment returns.

MARKET CONCERNS

While the market players have appreciated SEBI's efforts to make the algo trading market safe for retail investors, there have been eyebrows that have been raised on few of the proposals.

For instance, the suggestion to consider every API generated order as an algo order seems to be a not-well-thought-of solution, since it not only puts the entire burden on the stock brokers to take approval of each and every algo from the exchange, but also might not prove to be investor friendly considering the time the exchanges might take to approve the algo strategies. Moreover, this also raises concerns from intellectual property protection perspective.

SEBI should express its views on the online curated platforms providing off-the-shelf as well as customisable investment strategies to the retail investors and consider them bringing under its radar by requiring them to register either as investment advisers or research analysts, as the case may be, for the purposes of providing customised algo strategies to the retail investors.

Needless to say, algo trading poses huge challenges for SEBI to build a level-playing field for the retail and institutional investors. With the sort of financial and technological resources required to engage in algo trading; increased risks of market manipulation activities, such as spoofing and front-running; and historical cases, globally (2010 Flash Crash) and domestically (2011 BSE Muhurat session debacle, 2012 Nifty Flash Crash and the Colocation scam), it increasingly becomes difficult to maintain the balance between providing ample opportunities to the investors to engage in such sophisticated trading and protecting their interests during the process.

TAKEAWAYS

It is evident that SEBI and the stock exchanges have been putting in the efforts to safeguard the interests of the investors while promoting algo trading. With an increased interests of the retail and institutional investors in the public market, it becomes consequential for all the stakeholders to participate in the growth and development of the algo trading regime in India, so that none of the parties' interests get compromised in the process.

- Prakhar Dua

You can direct your queries or comments to the author

¹ A Study on Algorithm Trading / High Frequency Trading in the Indian Capital Market, report submitted under the aegis of DEA-NIFM Research Programme, available at https://dea.gov.in/sites/default/files/NIFM%20Report%20on%20Algo%20trading.pdf

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