MIFID II AND THE WORLD OF FLASH TRADING

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Introduction

Flash trading or high-frequency trading (HFT) refers to a trading strategy adopted to process a large data set in a real-time market environment. This strategy is used typically to place buy and sell orders with an aim to take advantage of market inefficiencies and differences in price and technology.

Algorithmic trading, also related to high-frequency trading, aims at auto-executing buy and sell orders in a preprogrammed manner, with variables that include the execution timing, quantity to be executed, and execution location.

Over the years, HFT adoption has gone through ups and downs. According to the TABB group, HFT in equities peaked in 2009, subsequently declining in later years. In 2010, post the flash trade-bust incidents, it fell sharply. In terms of geography, the US accounts for the largest volumes of HFT in equities, followed by Europe and Asia.

In recent years, HFT has caused a lot of uproar over its role in market crashes and manipulations. Multiple accusations were made on HFT practices as a contributor to market volatility and value-loss in investor portfolios.

Market in Financial Instruments Directive II (MiFID II) and High-Frequency Trading

MiFID II aims to address the issues with HFT and automated trading (AT) considering the recent market abuse allegations raised against it. Specifically, Article 17 of MiFID II covers areas that firms engaged in HFT must address or plan to address by the time MiFID is implemented in early 2017.

In 2012, the European securities and market authority (ESMA) came up with guidance on HFT, and MiFID II may take this forward to lay down technical standards mainly around monitoring algorithms and implementing policies and procedures to ensure that the impact of adverse times is minimized on the market and investors.

The guidelines on HFT mainly focus on:

- **Inform:** Firms engaged in the business of HFT / AT, must inform their home regulators about their HFT strategies in operations. In addition, they must inform regulators who control / supervise the trading venues. The firm may also be required to provide, from time to time, the systems and controls in place, to home and trading venue regulators.

- **Engage in market-making activities:** Firms that deploy HFT / AT strategies are required to engage in 'market-making' activities during a specified time of the day (trading hours of the venue) to provide liquidity to the trading venue and ensure commitment. There are exceptions to this as well. This is reflected in Article 17 (3).

- **Register:** In some cases firms that were earlier exempted under Articles 2(1) (d) or 2(1) (j) MiFID will now require registration / authorization to conduct / continue HFT activities.

- **Records:** Firms are required to preserve all records related to trading activities – orders / sequence including cancellations and executions. They must also store trading algorithm records for at least five years.

- **Record quality:** The trading algorithm records must be of good quality and be made available upon request / requirement by authorities engaged in supervising the firms / any other competent local / market authorities.

- **Controls:** Trading venues must be capable of halting trading temporarily if a high level of price volatility is noticed in the market in a financial instrument. In addition, trading venues need to show, as part of this requirement, that they have systems in place to detect / prevent any undesired trading conditions possibly induced by HFT.

- **Monitor:** Trading venues must be able to identify / monitor orders placed by HFT / AT players, algorithms they use to trade, and orders that are placed by them.

- **Price:** Firms using HFT are required to maintain a high 'order to execution' ratio and pay fees for excessive use of HFT techniques.

- **Controls:** Firms and trading venues must have adequate policies and procedures in place to reflect their trading strategies and system capabilities related to HFT.

- **Robustness:** Firms must test / retest their algorithmic trading in the testing environment before taking them live to ensure robustness of their functioning including business continuity.

Non-tech
Registration with regulators mandatory unless exempted explicitly
Must implement control policies and procedures to monitor trading / violations
Must be engaged in market-making activities during the defined part of the day
Must disclose algorithms to regulators as and when required

Technology
Must develop a robust recording infrastructure for all forms of communication
Must perform adequate testing for algorithms before being taken live for use
Must synchronize clocks with trading venues to correctly record time stamp
Must develop analytics to detect / prevent inconsistent trading activities

MiFID requirements and HFT

1 Investments in technology

Clock synchronization is an important legislation element for regulations such as MiFID. Firms engaged in high-frequency algorithmic trading need to synchronize their clocks with that of the trading venue to provide accurate time-stamping of two-way communication.

In the transaction cycle, trades may move across different time zones and if the clocks are not synchronized, the time stamp of this movement can be inaccurate and erroneous. This may lead to difficulty in tracing the time stamp of orders and promote unfairness in the market. Currently, there is no consensus on how unsynchronized clocks can be, to define a tolerance limit for HFT. While the financial industry regulatory authority (FINRA) wants time in milliseconds, ESMA aims at better accuracy with nano seconds.

Another key requirement of MiFID II is accurately recording all face-to-face, telephonic, and electronic transactions and making them available upon request to regulators.

Impact of regulations on HFT

This requires a significant upgrade of enterprise recording infrastructure. Investments are mainly required in recording (both audio and electronic), quality control, analytics, and storage.

Beyond recording, firms must also have the technology to monitor / audit recordings from time to time to ensure regulatory requirements are met and to spot and prevent any untoward incident. In addition, firms are required to inform all investors that all types of conversation would be recorded and made available to regulators

upon request. In case any investors do not agree, it is also required that HFT services be discontinued to them.

With regulations providing more stringent guidance for all market players, the entire range of infrastructure in the trading ecosystem will undergo a significant change, if HFT is here to stay. Any sustained failure and inability to meet the requirements will spell trouble for an area that is already in the news for

the wrong reasons. For example, it is required that trading venues ensure a robust infrastructure across pre-trade, post-trade, clearing, and settlement areas to handle the high volume deluge that HFT can create. But in the case of market stress due to volumes, it could create an imbalance, errors, and possible chaos in posting prices and smooth trade processing.

2 Algorithms disclosure risks

As HFT firms are required to disclose their algorithms to regulators (sometimes upon request), it is possible that the expertise of how millions were invested may move out of the control of firms which build the algorithms.

3 Impact on profits

When firms attempt to meet the regulatory requirements laid out for HFT (including paying excessive fees or taxes in countries such as Germany and Italy), it impacts profitability. To corroborate, the TABB Group statistics (estimates) indicate that the revenues in HFT (equities) have significantly declined between 2009 and 2012.

Besides, trading venues benefit from HFT in the form of higher fees. With HFT coming under severe regulations, the exchange venues may see an impact on their income.

Additionally, building controls and testing algorithms end-to-end can prove to be expensive. And the cost of putting any improperly tested algorithm in the live environment is huge as any negative consequence may sometimes lead to the closure of the entire business.

4 Monopolistic market structure

As regulators publish more directives to clamp HFT operations, firms, especially smaller ones, which have invested significantly, may be demotivated to invest more, given the uncertain future and increased regulatory scrutiny. For instance, in recent times, Bank of America decided to reduce investments in HFT when it decided to close its electronic market-making business. As small players move out or their investments reduce, the risk of creating a large player monopoly is great, which may further affect liquidity and increase concentration risk.

CONCLUSION

In the backdrop of alleged market abuse, regulators will without doubt, screen the HFT space more and more in the years to come. The Commodity Futures Trading Commission (CFTC) and ESMA have already brought forth regulations that will tighten scrutiny on HFT. Considering this, HFT firms, need to step up their investment in arming themselves with a foolproof technology, systems, and controls to comply with arising regulations.

While the increased regulations may result in a more supervised trading environment, and hence, possibly protect small investors, it may discourage or slow down investment in HFT technology due to possible large-scale fines in case of market misconduct.

For IT vendors the regulations spell opportunity in the areas of business continuity, algorithms development, end-to-end testing, hardware, building controls, policies, and procedures for HFT firms as they prepare for MiFID compliance over the next 18 months.
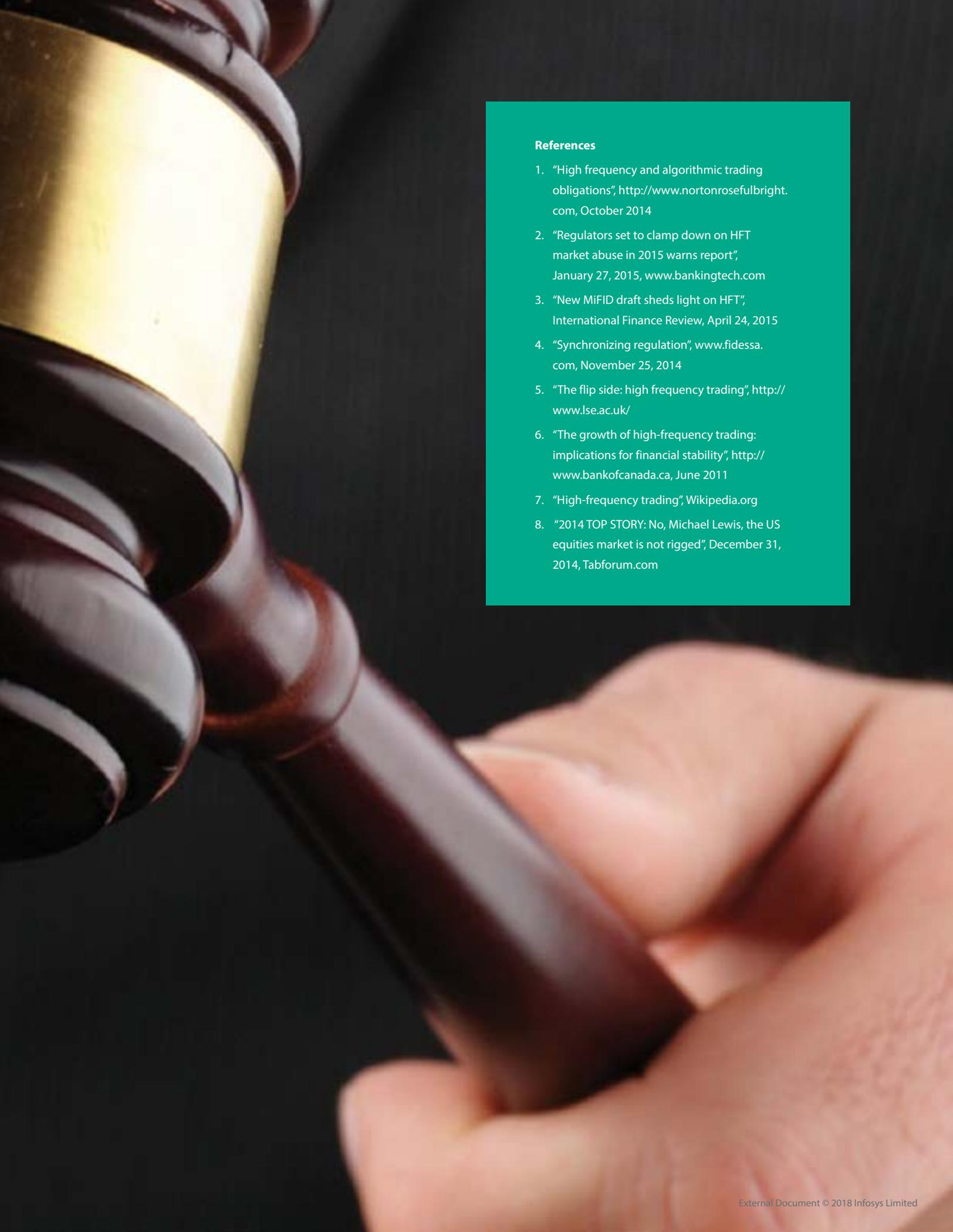
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