Brussels, 23 February 2010

FESE Input to the Commission – High Frequency Trading

General Statement:

FESE Member Exchanges agree that high frequency trading (HFT) represents a further natural step in the evolution of markets that allows more accurate, granular and faster pricing of securities. HFT leads to higher fungibility of securities, on a specific venue and between venues, and it can be seen as improving liquidity, leading to higher long term market efficiency and increasing transaction flow. FESE welcomes the European Commission´s effort to better understand the various trends in trading activities; however, we believe that it would not be necessary at this stage to design specific regulation for HFT as it may hinder the development of liquidity as well as have negative impact on innovation.

1. Nature of the activity

1.1. What are the defining characteristics of high frequency trading (HFT)? Can it generally be distinguished from other automated trading? If so, how can such a distinction be made?

High Frequency Trading (HFT) in and of itself is not a trading strategy - rather it is a time frame. Many different types of trading strategies, automated trading included, could fall within the definition of high frequency depending on their execution characteristics and average hold times. It is difficult to put hard numbers on what these characteristics should be as what could be deemed high frequency trading in one product or asset class could be construed as normal trading in a different product or asset class.

Rather than coming up with defining characteristics of high frequency trading, we feel that high frequency trading strategies have common characteristics. These common characteristics include but are not limited to:

- High use of technology to automate the management of open orders, positions and risk profile
- Low average hold times for their asset class
- Low profit per trade values
- High volumes per day

Common trading strategies that fall within the high frequency space are electronic market making as well as statistical or index arbitrage strategies. While these are most common, any trading strategy could be deemed high frequency should it exhibit some of the characteristics stated above.

1.2. Is there any evidence of the amount of trading by volume, and by value, on EU markets that is HFT?

This is difficult to do as there is no widely accepted definition of high frequency trading. In addition, there is no way to determine what volume was created by what type of strategy.

2. Strategies

2.1. What are the main strategies used for HFT?

Since not long ago, algo trading was developed by the buy side to reduce transactions costs (e.g. VWAP, TWAP, iceberg orders etc). Strategies are modified continuously to reflect the subtle changes in the market as well as to combat the threat of the strategy being reverse-engineered by competitors. There is a very strong pressure to continuously add features or improvements to a particular algorithm, such as client specific modifications and various performance enhancing changes (regarding benchmark trading performance, cost reduction for the trading firm or a range of other implementations). Algorithmic trading strategies must be able to adapt and trade intelligently, regardless of market conditions, being flexible enough to withstand a vast array of market scenarios. "Neural networks" and "genetic programming" have been used to create these models.

Generally speaking, strategies employed in the high frequency space are strategies that benefit from the speed of execution that low latency allows. Many different strategies are used in the high frequency space. Two of the basic high frequency trading strategies include:

- Liquidity provision/electronic market making: An algorithm is designed to act like a market maker by providing a continuous two sided market. Typically, electronic market makers that submit these passive orders do not have a particular bias as to the direction of the security. Their primary aim is to provide liquidity throughout the trading day. Profits per trade are often very small and are generated from capturing the spread between bid and ask and from liquidity rebates where they are offered. Losses occur when the algorithm has entered into a position prior to an adverse price move.

- Statistical arbitrage: An algorithm that decides to buy or sell, typically aggressively, in anticipation of changes in the market or across different markets/venues. This strategy can be active or passive – taking a short run position about the outlook for the stock. Profits are made from correctly anticipating price changes. Losses occur from not reading price changes correctly and from paying spread and liquidity fees. The signals to buy or sell may come from the stock, from other assets such as futures, or from news announcements.

3. Effects on markets

3.1. What benefits does HFT provide to the market? What evidence is there of those benefits?

The main benefits of strategies employed in the high frequency space are more accurate, more granular and faster pricing of securities. This in turns leads to higher fungibility of securities on a specific venue and between venues, improving liquidity and leading to higher long term market efficiency and increased transaction flow. HFT has added significantly to the increased volumes in the market and played an important role improving market quality (as defined by increased liquidity and tighter spreads). This improvement in market quality has directly benefited all market participants.

In today's highly electronic trading environment, HFT firms play the role of liquidity providers. The HFT community represents the evolution of the old market makers and specialists that used to populate the trading floors of the exchanges – they fulfill the same basic role i.e. that of providing liquidity to the market.

3.2. Does HFT pose any potential risks to the efficiency of the market? What evidence is there of these risks? Do the risks depend on the HFT strategies employed?

We do not have evidence of HFT posing specific risks to market efficiency or that certain strategies would increase risks on the market.

3.3. Is there any evidence that HFT is reducing the average transaction size? Is there a connection between average transaction size and indirect transaction costs?

Since the extent of HFT is not known, the consequence of HFT on the average transaction size is unclear. It is however likely that HFT has contributed to a reduction of the average transaction size. With respect to transaction costs, most venues have adjusted their fee structure to ensure that HFT can develop.

4. Unfair advantage

4.1 There has been some criticism that high frequency traders have an unfair advantage over other market participants. Precisely what advantages do high frequency traders have over other market participants? Is there any advantage that could not also be replicated by any other market participant if they chose to do so?

We do not see any unfair advantage benefitting HFTs. All participants are free to invest in the necessary technology; non-discretionary access to the trading systems is available to all participants. Having said this, one can note that larger participants have the financial and technical capability to employ the most efficient technologies to facilitate their trading activity which other participants may not be replicate due to size, financial or technical resource. However, that is a business decision on their part. Strategies are in place to ensure a fair and orderly market and avoid unfair distortions limiting participants' ability to use their financial resource to buy capacity to the detriment of others.

Broadly speaking, access to trading platforms should remain open on a non-discretionary basis to all market players willing and able to add orders, and hence liquidity, to the system, be they HFT entities or not. In this same line, access should be offered and provided to all players on a equivalent basis, allowing players under same terms and conditions –including price– to access the system on a non-discriminatory treatment. This philosophy would permit offering, on an equitable basis, additional access capacity for those players willing to attain it and paying for it.

5. Low latency

5.1. Is HFT the main driver of lower latency on markets? What are the benefits to market users generally from lower latency? Would there be any benefits in prescribing a limit on the latency that markets may provide? What problems might be caused by prescribing such a limit?

Firms that employ high frequency trading strategies have been a driving force for more efficient technologies in all areas of the trading environment – improved exchange latency being one of them. One of the key drivers for improved latency among the electronic market making community is that of risk. Electronic market making firms need to manage the risk of both their open orders in the market place and any positions that have been taken on. By shortening the time from when both a) a firm receives a fill notification and b) a firm decides to move or cancel an order and when that action is taken at the trading venue, market making firms can better manage their open order and position risk. As the latency times improve, market making firms are then able to make tighter and more liquid markets while taking on the same amount of risk. These tighter markets are a benefit to all market participants.

Putting limits on latency could result in higher spreads as firms would not be able to manage their risks in the timeliest fashion possible. Market making firms would widen their spreads to adjust for this higher risk premium.

In addition, if any latency limits were imposed in Europe, it would give an unfair advantage to non-European markets.

6. Reduced tick sizes

6.1. Is HFT the main driver of reduced tick sizes on markets? Would there be any benefits in prescribing a limit for the minimum tick size? Would this create any problems?

HFT is not the main driver for the reduction of tick sizes but rather one of the drivers. Several MTFs benefitted from reduced tick size offering trading "within the spreads" of established exchanges, thus entering into 'race to the bottom'. Competing in terms of tick sizes is widely agreed as being ruinous, as the short-term effects of attracting volumes by undercutting tick sizes can swiftly be mimicked by others, with the end result of overall reduced levels of liquidity. We have seen that since the tick size harmonisation the "% of EBBO with highest liquidity" gains of some MTFs have fallen strongly. The tick size harmonisation work concluded last year[1] reduced the complexities by implementing standardised tables across the markets. However, during the discussions there was no clear consensus on the most appropriate/beneficial outcome and each market had to deal with the specifics within its own products. Therefore, a one size fits all approach to a minimum limit may not be appropriate. However, a minimum level may be desirable to ensure the market needs of the diverse trading community, such as market makers, are met.

7. Co-location

7.1. Who are the main categories of market participants who use co-location? Does co-location create any risks to markets or market efficiency? In practice is the possibility of co-location available on a non-discriminatory basis?

Co-location is generally available on a non-discretionary basis and it is used by those participants (from both the sell and the buy side) that wish to reduce their latency. Currently, co-location services offered by the RM's and MTF's are controlled and monitored by the regulated trading venues. This ensures that the co-location service is offered in a non-discriminatory basis. Any firm that decides to invest in co-location services has the ability to do so. If co-location services were only offered by private sector solutions, there is a potential for discriminatory behavior that would be out of the regulatory arm of the exchange or national regulators.

8. Sponsored access

8.1. Some HFT use direct market access (or sponsored access) to trade. Does the use of direct market access raise any regulatory concerns?

DMA access itself (where a participant facilitates access for its clients) does not raise regulatory concerns provided that there is pre-trade risk management, the sponsor retains the responsibility of trades and the sponsored access is given in exactly the same terms and conditions as to any other type of access to market participants.

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[1] FESE, AFME, Chi-x, BATS Europe, Nasdaq Europe and Turquoise agreed on 30 June 2009 to adopt the same tick size tables for the domestic markets. See http://www.fese.eu/en/?inc=cat&id=34

9. Market abuse issues

9.1. Some critics of HFT argue or imply that certain HFT may be market abuse. Is there any basis for such a suggestion? If yes, please explain precisely in what way HFT may be abusive?

There is nothing intrinsic to HFT that leads to market abuse and there is no material evidence to imply this is systematically the case. Like any other trading activity, HFT may involve market abuse when conducted improperly.