



May 28, 2010

COMMITTEE OF EUROPEAN SECURITIES REGULATORS
CALL FOR EVIDENCE
MICRO-STRUCTURAL ISSUES
OF THE EUROPEAN EQUITY MARKETS

Managed Funds Association (“MFA”)¹ appreciates the opportunity to provide comments on the Committee of European Securities Regulators’ (“CESR”) call for evidence on micro-structural issues of the European equity markets (“Call for Evidence”). MFA notes that CESR, and other regulatory authorities are considering market structure issues carefully and we commend CESR for its efforts. MFA also has recently submitted comments to the U.S. Securities and Exchange Commission (“SEC”) on many of the same issues raised in CESR’s Call for Evidence.² We submit these comments based on our experience in the U.S. equity markets to assist CESR in its assessment of micro-structural issues of the European equity markets.

I. HIGH FREQUENCY TRADING

Please describe trading strategies used by high frequency traders and provide examples of how they are implemented.

As the breadth of users of advanced trading technology has grown and market centers have advanced their capabilities, strategies once employed primarily by high frequency traders are now in broad use by a wide range of investors. Because of their lower cost and greater capacity, investors of all types, including brokers representing retail investors, use these technologies and algorithms to carry out very traditional investment strategies. With that development, it has become increasingly difficult to differentiate high frequency trading (“HFT”) strategies from longer horizon investment strategies and their associated execution methods simply by examination of the latency of their orders. Low latency technology is being offered and used by more and more of the investing community, making the underlying strategy less relevant.

That said, there are investment and trading strategies that are more dependent than other strategies on low latency technology for strategy execution and, indeed there are some strategies

¹ MFA is the voice of the global alternative investment industry. Its members are professionals in hedge funds, funds of funds and managed futures funds, as well as industry service providers. Established in 1991, MFA is the primary source of information for policy makers and the media and the leading advocate for sound business practices and industry growth. MFA members include the vast majority of the largest hedge fund groups in the world who manage a substantial portion of the approximately \$1.5 trillion invested in absolute return strategies. MFA is headquartered in Washington, D.C., with an office in New York.

² Securities Exchange Act Release No. 61358 (January 14, 2010); 75 FR 3594 (January 21, 2010) and MFA’s comment letter available at <http://www.managedfunds.org/downloads/MFA%20Mkt%20Structure%20Ltr.5.7.10.pdf>

whose very viability depends on these technologies. Given the significant and growing role of these short-term or *high frequency* traders (a loosely defined term), the CESR inquiry rightly seeks comment to understand the nature of their strategies. In our view, this inquiry lends itself to a discussion of arbitrage, with the important inclusion of market making, which is the objective of many strategies used by short term traders, that generates much of today's trading volume. In a literal sense, arbitrage speaks of riskless profits, but throughout this letter all of the "arbitrage" strategies, including market making, are risk taking strategies.

High frequency traders pursue a variety of investment strategies, not all of which operate on the same time scale or require the fastest technology. Strategy holding periods can vary greatly, from sub-seconds to multiple hours, with the shorter horizon strategies being more likely driven by fleeting arbitrage opportunities and market making, and the longer horizon strategies by forecasts of stock returns. While these strategies—and the skills needed to implement them—can differ tremendously, there is often much similarity in order placement methods and certain features of the transaction history.

There are three significant types of arbitrage: arbitrage across markets; arbitrage across instruments; and arbitrage across time or temporal arbitrage (*e.g.*, market making). In addition to bringing enormous liquidity to the markets and substantially reducing spreads and trading costs, these forms of arbitrage also improve price discovery, with the concomitant benefit of generating more efficient capital allocation.

Arbitrage across markets takes place when an instrument (or two very similar instruments) trades on different exchanges with different prices. A cross-market arbitrageur will buy shares and sell them as quickly as he can, for competition makes these discrepancies fleeting. Equivalently, he could sell them short on one exchange and then buy them back on another as quickly as he can. Either of these methods will tend to create a convergence of stock prices. But the strategy is risky; the trader takes the risk that by the time he can sell the shares that he has bought on one exchange, the price already will have moved on the other, creating a loss. To minimize this risk, he will strive to obtain price information with as little delay as possible and to submit his orders as quickly as possible. Competition forces the arbitrageur to collect data and generate and transmit orders with as little latency as possible. This competition for speed is a competition for speed against other high frequency traders and ultimately has the beneficial effect of greatly reducing market inefficiencies that cost institutional and retail investors who might otherwise trade at the "wrong" price.

The strategy mechanics for *arbitrage across instruments* are very similar to arbitrage across markets. A trader employing this strategy may focus on two stocks that tend to rise and fall together. He may notice that on a particular day that the securities have drifted unusually far apart, with the price of one security rising while the price of the other security in the same sector falling. The trader may decide to buy the security that falls in price, which looks relatively cheap, and to sell the security that rises in price, which looks relatively expensive. As with arbitrage across markets, there is risk. The primary risk is that the stock prices never converge at all. The trader also faces the risk that by the time he executes his orders, the divergence already will have diminished. So, the trader will want to execute as quickly as possible. (Note that the net result of his actions is that the prices of the divergent stocks will have moved closer together.)

These short term trading strategies are beneficial to the markets. In the case of arbitrage across markets in the same instrument, we know that the value of a given share of stock is the same regardless of where the share was purchased—despite the fact that it may be traded at slightly different prices at the same time in two different markets. The average of the prices offered at the different venues is likely to be a better estimate of the true value of the security and since the arbitrage activity moves prices in that direction, the activity results in superior capital allocation. With arbitrage across instruments—where in our example the arbitrageur sells a security which is rising in price, and buys the security, which is falling in price—the strategy is not complete until at some later point the arbitrageur closes out his positions. The arbitrageur has no guarantee that prices ever will revert to their normal configuration, or they may return, but so far in the future that the arbitrageur has to close-out his trade at a loss before the convergence takes place. Arbitrageurs who consistently generate trades like this and generate more losing trades than winning trades will be forced to give up the strategy. Those who consistently produce more winning trades than losing trades, however, will survive and will benefit the markets by correcting inefficiencies, all while making money and continuing to perfect their technique. The markets will sort the wheat from the chaff and all but the chaff will benefit.

Temporal arbitrage – market making - is a little different from the arbitrage strategies discussed above. Strategies of this form represent a very substantial portion of high frequency trading volume.

Any functioning market requires market makers who generally stand ready to buy and sell securities on the demand of investors. This service provided to investors by risk taking traders has now largely become the province of electronic, high frequency traders—rather than a single dedicated market maker, there may be several high frequency traders that provide liquidity to a market. These traders constantly submit buy and sell orders that provide the liquidity needed to support today’s high volume markets, and they supply it at much lower cost than did the manual market makers of previous times.

The temporal arbitrageur is not finished with his trade until he has sold off all of the stock that he buys from a selling investor. He may find that the natural buyer he is hoping for does not show up quickly enough and as with the arbitrageur across instruments, he may have to exit his position at a loss. If this happens consistently, he will go out of business, so, again the market separates the wheat from the chaff among temporal arbitrageurs to the benefit of all but the chaff.

These arbitrage strategies benefit the markets and investors, though not all stocks are similarly affected. A large company typically has many more shareholders than a small company. As a result, when one wishes to buy or sell a share of a large company, it is much more likely that another shareholder will sell or buy very soon. A temporal arbitrageur facilitating the trade between these two parties takes on less risk and requires a smaller bid/ask spread than he does for a small, likely more volatile company where the other side of the trade may not arrive for some time. When providing liquidity to these less active and more volatile stocks, the arbitrageur hopes to earn a larger spread to cover this risk. However, he cannot widen his spread arbitrarily, for other market makers will be willing to trade at lower cost and our arbitrageur will be sidelined and profitless. Market making competition reduces costs and also creates a competitive race for speed, for being second in line to offer liquidity, even at the right price, may still leave the arbitrageur with no opportunity.

A well functioning market requires strong and aggressive market makers. Investors in small cap stocks need market makers willing to take on the substantial risk required to provide them a tradeable market for their less liquid holdings. Investors in large cap stocks need market makers who can take on the substantial risks generated by the large trading volumes and liquidity demands of large cap investors. Thus, a goal of regulation should be to continue to encourage those traders who are providing liquidity to all market participants.

What are the key drivers of HFT, and (if any) limitations to the growth of HFT?

A primary driver of the transformation of equity trading has been the continual evolution of technological advancements and competition in the equity markets. This competition has led to improvements in technology and reduction in execution costs that benefit equity investors of every size, from individuals to the largest and most sophisticated institutional investors.

Most notably, the advancements in technology have empowered investors, both institutional and retail, with more sophisticated and efficient methods to access the markets and execute their investment strategies globally. In the process, these equity market developments have led to greater market liquidity and depth, tighter bid-ask spreads and lower transaction costs. These changes lower the cost of capital and enhance economic growth.

Growth of high frequency trading is limited to the growth of trading opportunities available to high frequency traders. With the transition from manual to electronic market making mostly complete, going forward we expect that high frequency trading growth will be in line with growth in overall market volume. When high frequency trading volumes exceed the demand for their market services, profitability quickly erodes and participants leave the market or reduce trading activity.

We also recognize that the modernization of regulation and the technological and market innovations of the past decade that have reshaped equity market structure also raise new regulatory concerns that the CESR inquiry should evaluate.

As a general matter, the current market structure works well for investors and we are generally pleased with the market regime and the protection it offers investors. We respectfully urge the CESR in considering any market structure proposals to proceed cautiously as we are concerned that unintended consequences could harm investors by decreasing market liquidity, depth and efficiency while raising transaction costs. We believe regulation should promote technology and global competition; however, we strongly recommend that the CESR also focus on fairness of the market structure. We feel the European market structure is fair in that it treats similarly situated market participants in a consistent manner and provides all market participants with equal opportunity to compete and access markets. In fact, in our opinion the current market structure is fairer than it ever has been as it no longer preferences particular market intermediaries over other market participants in terms of providing and accessing liquidity. Low latency tools and techniques are available to all market participants and CESR should make sure that proprietary firms, banks as well as third-party vendor offerings do not have advantages that are not disclosed to clients.

What are the key benefits from HFT? Do these benefits exist for all HFT trading strategies?

Market structure advances have effectively enabled the growth of HFT, which are a set of technological tools and trading methods based on low latency technology that were first developed in the early 1990's. Over time, HFT has found new applications that go beyond its early roots in proprietary trading. Investors of all types, regardless of their investment time horizons, now broadly use the low latency methods pioneered by high frequency traders for efficient execution. Indeed, these methods quickly have become the standard execution platform offered by most sponsors. Today, both traditional and purely electronic liquidity providers depend on HFT methods whether they access the markets directly as broker-dealers or through an agency broker via sponsored access. More broadly, broker, exchange and investor trading technology all have become reliant on low latency technology and its great capacity.

HFT methods and low latency technology have delivered important benefits to investors and to our markets. They have lowered transaction costs for most investors, be they retail investors or large institutions, increased the capacity of our markets, created more competition and diversified and expanded the number of market participants that are capable of acting as liquidity providers who reduce volatility while improving price discovery.

While a very large proportion of HFT strategies are of the type outlined in our response to Question #1, other strategies may include the use of different order types. We believe that these strategies also improve price efficiency and so are generally beneficial to markets and market participants.

Do you consider that HFT poses a risk to markets (e.g. from an operational or systemic perspective)? In your view, are these risks adequately mitigated?

In our opinion high-frequency trading strategies present considerably less market, liquidity, and operational risks than traditional lower-frequency/institutional trading. Nevertheless, the additional complexity of today's market structure creates new issues and challenges that regulators should further study.

Market risk tracks the financial impact of potentially negative price movements of publicly traded securities. In a low-speed manual trading environment, much of the market risk comes from extreme events. These event risks also are present in a high-frequency environment, but an argument can be made that low latency technology and HFT methods have encouraged, expanded and diversified the number of participants who provide liquidity to the market — reducing illiquidity risk by adding many more market participants.

With respect to operational risk (efficiency of daily execution, settlement and operational processes), manual trading often results in errors in the execution, clearance and settlement processes which impact a firm's margin/collateral level as well as results in the need for cash transfers. In fully computerized high frequency trading, these issues are most often eliminated; the trading process, from order entry to execution to settlement, is fully automated and far less likely to generate the errors associated with manual processes.

We believe that all styles of investing have their unique and specialized set of risks. Automated trading should have safeguards to reduce unintended market orders or glitches that would create unnecessary short-duration volatility. We support safeguards like the implementation of pre-trade filters for trade orders either at the intermediary level (as discussed in Section II, Sponsored Access) or at the market level.

A more difficult challenge is determining how to best mitigate the risks created by today's complex, competitive, and high throughput market structure. Now under study in the United States, as a result of the May 6, 2010 disruption, additional procedures at the exchanges may be beneficial in order to reduce the potential impact of realizations of this complexity risk.

Overall, we believe for investors of all sizes and trading horizons, high frequency trading and low latency technology present fewer risks and smaller risks than manual trading. Though its technologies and associated market structure changes have introduced some new risks worthy of study, they are far outweighed by the benefits generated by this technological progress.

Overall, do you consider HFT to be beneficial or detrimental to the markets? Please elaborate.

HFT methods and low latency technology have delivered important benefits to investors and to our markets. They have lowered transaction costs for investors, increased the capacity of our markets, and created more competitive markets. Advancements in technology have empowered investors to better implement their investment strategies through the use of automated trading programs and high frequency trading execution techniques. As a result of market structure changes, many aspects of our equity markets—spreads, fees, execution speed, efficiency, and pricing transparency/reliability—have steadily and drastically improved over the last several years - to the benefit of investors. Investors now receive better service from financial intermediaries and have lower-cost options for accessing markets and executing orders.

Criticism of high frequency trading commonly centers around the high market share of high frequency traders and their aggressive competition for trading opportunity as evidenced by their constant investment in reducing their latency. We believe that their market share is largely reflective of their role as liquidity providers and is entirely consistent with the market share of the manual market makers of earlier times. Further, their competition to reduce latency is a competition amongst themselves that determines which of them provides liquidity to investors. The result is reduced transaction cost for retail and institutional investors and spin-off technology that improves markets.

Do you consider that additional regulation may be desirable in relation to HF trading/traders? If so, what kind of regulation would be suitable to address which risks?

Given the highly technological nature of today's markets, we believe that investors should benefit from some additional disclosures. In this respect, we recommend that the CESR consider:

- Requiring broker-dealers and connectivity vendors to establish timing standards in order execution latency and to disclose such standards to all current and prospective clients to ensure that clients understand the level of order execution latency they are receiving, particularly how it

compares to the connectivity provided to the broker-dealer's own proprietary or market making business lines.

- Requiring broker-dealers and connectivity vendors to provide written disclosure to clients if they will use (or will provide to others who, in turn, will use) information based on the flow of a customer's investment activity in connection with a firm's proprietary or market making businesses.
- Requiring market centers to provide written disclosure when they or third-parties provide co-location services on a priority basis other than first available.

We strongly believe these recommendations will further strengthen the equity market structure, improve investor protection and enhance the integrity of our capital markets. In addition, there may be additional safeguards that would be appropriate to implement at exchanges in order to reduce some of the complexity risk evidenced by the May 6, 2010 events in the US markets. While not strictly a high frequency trading risk, safeguards that incorporate knowledge of today's low latency trading environment should be studied. These safeguards may include requirements for adequate market data distribution capacity and quality and the exchange disclosure of the details of their order matching algorithms.

II. SPONSORED ACCESS ("SA")

What are the benefits of SA arrangements for trading platforms, sponsoring firms, their clients and the wider market?

Clients of intermediaries, such as broker-dealers in the U.S., use sponsored access arrangements in conjunction with other low latency trading technology to execute orders with minimum latency, to reduce uncertainty with respect to order fill, to reduce trading costs and to improve the efficiency and quality of order execution. Investors of all types use sponsored access. Please see discussion under Section I, question 5, for benefits to the wider market.

What risks does SA pose for the orderly functioning of organised trading platforms? How could these risks be mitigated? What risks does SA pose for sponsoring firms? How should these risks be mitigated?

As the CESR is aware, the SEC recently proposed new measures in relation to both market access and sponsored access.³ The risks posed by sponsored access are the same risks posed by a broker-dealer trading as a market member: the potential breach of a credit or capital limit; the submission of erroneous orders; the failure to comply with market or trading regulations; and the failure to detect illegal conduct. MFA supports that intermediaries should have appropriate and pragmatic risk management controls to prevent trading errors and to ensure

³ Securities Exchange Act Release No. 61379 (January 19, 2010); 75 FR 4007 (January 26, 2010).

compliance with applicable regulatory requirements; and that these controls should apply to both proprietary and customer business.⁴

4. Is there a need for additional regulatory requirements for sponsored access, for example:

- a. limitations on who can be a sponsoring firm;**
- b. restrictions on clients that can use sponsored access;**
- c. additional market monitoring requirements;**
- d. pre-trade filters and controls on submitted orders.**

The SEC has proposed requiring a broker-dealer that provides a customer with access to an exchange or alternative trading system to apply pre-trade risk management controls. MFA supports that broker-dealers should have exclusive control over and ultimate responsibility for automated risk management controls, including the ability to monitor and adjust the controls in real-time. With respect to the implementation of risk management controls, we believe sponsoring broker-dealers should have flexibility in developing the controls or using technology developed by independent third parties or customers or entities affiliated with customers. In instances where the technology is not developed in-house, the broker-dealer should validate and test the technology prior to utilization.

Allowing a broker-dealer to use technology developed by a third party or customer, would help ensure that the regulatory framework does not create unfair competitive advantages for proprietary broker-dealer trading desks versus their customers. The ability to fine tune the technological architecture and implementation of pre-trade controls is a critical competitive issue because subtle differences in architecture and implementation can have a drastic impact on speed of execution and latencies.

To the extent, the CESR finds it appropriate to recommend that intermediaries implement pre-trade filters and controls on submitted orders we believe it is important that the CESR be mindful that such a proposal does not create competitive disadvantages for customers. Customers of broker-dealers are concerned that market regulations should not advantage a broker-dealer's proprietary business over its customer business. That said, MFA supports the pragmatic application of filters or control mechanisms and recognizes that a broker-dealer may impose different types of filters and control settings on proprietary orders because such orders may raise different types of risks from customer orders.

Finally, we believe that the CESR in addressing sponsored access should re-emphasize the need for broker-dealers to maintain information barriers between a broker-dealer's purely proprietary trading businesses and customer-facing trading businesses; and to respect and comply with their existing regulatory responsibilities and any additional contractual obligations to protect the confidentiality of customer orders. We believe this is especially relevant when the execution infrastructure provided by a sponsoring broker-dealer is the same for both proprietary and client market connectivity.

⁴ MFA's comment letter is available at <http://www.managedfunds.org/downloads/MFA%20Comments%20on%20BD%20Risk%20Mgmt.3.29.10.pdf>

III. CO-LOCATION

What are the benefits of co-location services for organised trading platforms, trading participants and clients/investors? What impact do co-location services have on trading platforms, participants, and the wider market? Does the latency benefit for firms using co-location services create any issues for the fairness and efficiency of markets? Do you see a need for regulatory action regarding any participants involved in co-location, i.e. firms using this service, markets providing the service and IT providers? Please elaborate.

Co-location allows an investor or trader to react more rapidly to news and market conditions than another non-co-located investor or trader. However, we note that the co-located trader still must have the correct market analysis to benefit financially from the advantage co-location provides, and that the HFT-space is highly competitive, which means that profit and arbitrage opportunities are difficult and expensive to discover. Co-location is particularly critical to market participants whose strategies include reacting to fast, short-term price swings. Co-location is a link in the low latency technology chain, not a latency solution. Many investors with longer-term investment horizons, however, also value and rely on the ability to co-locate.

The fact that certain investors and traders may be willing to incur greater costs to develop more sophisticated trading tools does not make their possession of those tools inherently unfair. The use of co-location or advanced execution algorithms does not provide similar time-and-place advantages, in terms of access to information and executions, as a seat on the floor of a physical exchange offered previously. Co-location demands are the natural and positive result of competition among electronic market-makers attempting to be first to provide liquidity to investors. This competition lowers investor costs and improves the availability of liquidity. It is not a mechanism to disadvantage investors; it is a mechanism to compete to provide a service to investors.

As long as co-location is available to investors, traders and larger brokers on an equal basis, the secondary market for such services to smaller customers from their brokers should be competitive and thus, fairly priced. Accordingly, we believe market centers should disclose if they or third parties offer co-location services on a priority basis other than first available.

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