



Committee for European Securities Regulators
By on-line submission

30th April 2010

Dear CESR

Call for Evidence on micro-structural issues of the European equity markets (Ref: CESR/10-142)

Thank you for the opportunity to provide comments on the various micro-structural issues in the Call for Evidence. We have set out below general comments about the topics covered. Our response to CESR's detailed questions is contained in the Annex to this letter.

By way of background, BATS Trading Limited ("BATS Europe") is based in the UK and is authorised and regulated by the UK Financial Services Authority ("FSA") as the operator of a Multilateral Trading Facility ("MTF").¹ BATS Europe operates an Integrated Book (for displayed orders and non-displayed Large in Scale orders), a Dark Book (for non-displayed orders that match at an externally generated reference price) and an Order Routing Facility so that orders which are not filled on the BATS Europe order books may be routed to other execution venues.

BATS Europe is part of the BATS Global Markets group² which includes an SEC-registered equities exchange and recently launched options exchange in the US. BATS' mission when it started operations in the US in 2006 was to make markets better through competition. The BATS Global Markets group remains committed to the benefits of competition, in particular the positive impact of free choice and competition on innovation and efficiency.

Automation of equities trading

A number of the concepts that CESR is considering in its Call for Evidence could be described as by-products of a competitive equities trading environment as firms and trading venues have innovated to create the most competitive and efficient offering. For example, technological advances and regulatory reforms have transformed equities trading from taking place on a single physical trading floor to multiple competing electronic trading venues.

¹ BATS Europe launched its market for the trading of pan-European equity securities on 31st October 2008 and regularly matches more than 10% of the notional value traded in FTSE 100 securities and 5-7% of other major European indices.

² Owners of BATS Global Markets Inc include affiliates of Citigroup, Credit Suisse, Deutsche Bank, GETCO, JPMorgan, Lime Brokerage, Morgan Stanley, Merrill Lynch and Wedbush.



An efficient market relies upon a multitude of different types of liquidity which will be provided by different market participants with different business models, trading styles and trading strategies that have been implemented using different means. Automation has permeated all aspects of equities trading; whether a proprietary trading firm using its own funds to act as a market maker by providing two way liquidity, a multi-desk bank, an agency broker enabling its clients to have access to more sophisticated trading tools and faster access to trading venues or a retail client using on-line execution services.

There has been much comment about “High Frequency Trading”. However, it is important to note that HFT is not of itself a trading strategy but rather a broad categorisation of the automation of a number of trading strategies that has enabled market participants to trade more frequently and efficiently.

With respect to trading strategies that have become more automated, any well functioning liquid market requires firms willing to provide liquidity and make public prices. Traditionally, specialist and manual market makers have carried out this function by quoting two way prices and generating revenue from the spread. As the market has evolved, the way in which the provision of liquidity is implemented has changed. In particular, a new breed of liquidity providers using algorithms has replaced the specialists and manual market making firms. As previously, these liquidity providers post two sided orders onto electronic orders books, providing liquidity and making a public price.

The “hold period” for market makers typically has always been short as this type of firm does not seek to hold a long-term ownership interest but rather provides a service and generates revenue from this service, including compensation for the risk taken in placing a quote or order in the market. Greater automation has reduced the time taken to place an order into the market, to trade, and to receive confirmation about the status of that order or trade. As a result, the risk associated with placing an order into the market is greatly reduced, which means that more capital can be deployed into the market. In addition, firms can place orders and trade more frequently, which results in increased liquidity and the more effective alignment of prices across multiple trading venues as inter-market price discrepancies are more quickly identified and corrected.

The democratisation of market making is now such that any appropriately constituted firm can become a liquidity provider. However, such liquidity providers have automated their trading in order that they are able to remain efficient and competitive. Similarly, co-location has replaced traders on the exchange floor, as these firms now instead seek to locate their systems close to a trading venue’s matching engine. The emergence of a greater number of automated liquidity providers both reduces the market’s dependency on a small number of firms providing this service and introduces competition between liquidity providers to the benefit of other market participants through increased liquidity, more efficient price formation and reduced spreads.

Greater automation can also be seen in other trading styles or techniques, such as statistical arbitrage. This has developed and evolved from pairs trading into multi-security techniques. In a statistical



arbitrage strategy, under- and over-priced securities resulting from liquidity imbalances are identified according to the firm's statistical analysis. These are then respectively bought and sold, thus providing liquidity into the market which corrects liquidity imbalances and pricing anomalies. Whilst time horizons may vary widely, greater automation has increased the number of securities that can be analysed and the frequency with which firms can implement their statistical arbitrage strategies. As noted above, the significant decrease in the time taken to place and process orders has decreased the risk associated with placing an order into the market. As a result, firms using statistical arbitrage strategies are able to more confidently counteract smaller liquidity imbalances and pricing anomalies.

With respect to broking activities, greater automation has enabled brokers to provide more sophisticated tools to their clients in order that they can trade more quickly and efficiently. Brokers offer on-line execution to their retail clients and Direct Market Access ("DMA") and algorithms to their institutional clients. Under DMA, whilst the client's order passes through the broker's systems and checks, the client is effectively able to place orders directly on a trading venue's order book. As demands for faster access have grown, brokers are beginning to offer direct access in a different form via Sponsored Access. Whilst forms of direct access pose specific risks that should be appropriately mitigated, which we discuss in more detail in the Annex to this letter, they reflect new ways in which end investors are able to benefit from the automation of the market.

Any firm can choose to invest in technology to automate trading and trading strategies, co-locate in data centres or choose a low latency network connection, and use the lowest latency version of any market data feed. However, firms should be able to choose solutions that most appropriately meet their business needs. Consequently, we believe that regulators should focus on ensuring that trading venues uphold the principle of fair access in MiFID, such that trading venues do not discriminate against or in favour of certain participants through any means with respect to access to that venue.

In our opinion, trading firms should have choice in how to organise their businesses, which trading styles and strategies to use, and how they utilise technology to implement these. Similarly, we believe that innovation should be embraced rather than stifled. Having said that, as new trading strategies and technology emerges, monitoring and surveillance must keep pace. We believe that regulators should focus on trading behaviour and the outcome of that behaviour, rather than on trading strategies or the way in which those strategies are implemented. It is imperative that trading venues play their part in effectively monitoring the behaviour of all of their members and that regulators have access to sufficient data and tools so that disorderly trading can be prevented and so that those deliberately abusing or manipulating the market are disciplined.

Fee structures

Competition introduced by MiFID – and, indeed, even the threat of competition prior to the implementation of MiFID – has put pressure on the incumbent European exchanges to reduce fees. As a result, market participants are generally benefiting from lower direct execution costs. In addition, a



number of MTFs such as BATS Europe offer standard pricing that is comparable or better than the top volume tier offered by the incumbent exchanges to their members. In such cases, a broader cross-section of firms – regardless of trading volume – is able to qualify for pricing previously reserved for the top ranking members of the incumbent exchanges.

It is important to note that trading venues' fee structures are by their nature designed to maximise revenue by incentivising firms to trade on one venue rather than another. Whilst most commentators primarily refer to direct execution costs, we would also note that the majority of the exchanges and MTFs levy additional charges on their members for ancillary services, such as one-off and ongoing connectivity costs, application and on-going membership fees, port fees, testing fees, “excessive system usage” fees, market data fees, etc. By contrast, at this time BATS Europe does not charge for any of these services.

Trading venues may also use a number of other methods to incentivise their members, including:

- Pricing tiers
- Specific incentives for subsets of participants (for example, market maker incentive schemes)
- Jump balls
- Cross-subsidisation (including by geography, service or product)
- Liquidity agreements
- Client specific pricing
- Prioritisation of specific clients in co-location offerings

We believe that the complexities in certain incentive structures do not help market participants compare services offered from competing trading venues, nor are all fees or benefits necessarily transparent.

Whilst it is legitimate that fee structures can be used to competitive advantage, it is imperative that they do not undermine the orderliness and fair functioning of the market. To that end, we believe that fee structures – execution fees, ancillary fees and any other related incentives to encourage trading on a particular venue – should meet the following tests:

- they should be transparent;
- they should be non-discriminatory;
- they should be consistent with a reliable price formation; and
- they should not be designed to encourage trading for improper purposes.

In our opinion, individual price levels should be decided by competitive and market forces. However, we believe that regulators have a role to play in ensuring that the underlying fee structures meet the tests set out above.



There has been much discussion about the maker/taker fee model, which has been popular in the US equities market for some time and has been or continues to be employed by both MTFs and some of the major European exchanges. We believe that the maker/taker model benefits market participants through a more liquid market and greater competition between liquidity providers, resulting in a more efficient market with tighter spreads. We strongly disagree with commentators who have suggested that the maker/taker model allows for risk free trading and creates phantom liquidity. Any strategy where there is an order placed in the market, particularly a resting order, by definition, cannot be risk free. The automation of liquidity provision enables firms to more frequently update their orders to reflect changes in the market. However, these orders are firm and are not “phantom” liquidity.

By contrast, any firm, whether using automated trading techniques or not, that attempts to mislead the market through placing orders that are not indicative of genuine trading interests is guilty of manipulation and should be appropriately disciplined. As noted above, it is imperative that trading venues have effective and appropriate arrangements in place to identify any disorderly or abusive behaviour and to intervene where necessary to maintain the integrity and orderliness of the market.

Tick size regimes

Historically, tick sizes have typically been set by the primary market. Depending on the exchange, tick sizes were allocated according to varying – and not always transparent – factors, including market capitalisation, index membership, security type and, in some cases, on an individual security basis.

In a pan-European trading environment, there are clearly benefits to market participants and the orderliness of the market if tick schemes are simple and common across platforms. For example, where a broker is trading a security on multiple European trading venues, a common tick scheme reduces the complexities associated with order routing and the consolidation of market data from multiple sources. With this in mind, a number of the MTFs with the broking community (through AFME) and later FESE attempted to create a simplified tick scheme that could be used by all pan-European trading venues.

Clearly there is a balancing act in setting tick sizes. A tick size that is too large may result in liquidity providers buying at higher prices and selling at lower prices than they would were the security quoted in finer tick sizes. Conversely, tick sizes that are too small create thin liquidity for a security across many price levels. The primary consideration for the group was to create simplified tick schemes that could be used consistently by all European trading venues whilst aiming to ensure that tick increments in each case were appropriate, rather than solely seeking to implement finer tick sizes.

Initially the group focussed on large cap securities. The concept of “spread leeway”³, as introduced by Deutsche Börse, was used to analyse the current tick schemes and to propose simplified tick schemes. During this time, BATS Europe ran a pilot scheme in a selected number of securities identified as most

³ Spread Leeway = (Inside Spread / Tick size) – 1



constrained by their current tick size. We analysed the impact of the changes on spreads as well as depth and average trade size in comparison with a control group of securities.⁴

Since the agreement between all parties to the new tick schemes, the changes have been rolled out by a number of exchanges and MTFs for large cap and most major mid cap European equity securities and we are content that market participants worked together to implement a sensible solution. We believe it will be useful to analyse the impact of the changes in due course and make any amendments as necessary. We would, however, note that there remain a number of notable exceptions; both in terms of the trading venues that have implemented the new tick schemes and the coverage of the tick schemes (both indices and products).

With respect to the remaining mid cap and small cap equity securities, FESE undertook to investigate whether a harmonised regime could be put in place but has concluded that harmonisation would not work for smaller securities on a cross-border basis. We disagree with this analysis and believe that we should continue to work to create a harmonised tick scheme for the remaining mid cap and small cap equity securities. To this end, we believe it would be helpful if regulators support this type of industry-led initiative as Best Practice. Within this context, we would also note the industry-led initiative to create a common symbology for pan-European securities which again seeks to reduce the complexities associated with cross-border trading by allowing market participants to use a single logically derived symbol for a security on any European trading venue.

We would be happy to discuss our response to the Call for Evidence in more detail with CESR or to provide additional data or information to assist CESR.

Yours sincerely

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BATS Europe
BATS ... Making Markets Better

⁴ The study can be found at: http://www.batstrading.co.uk/resources/publications/BATSEuro_Tick_Size_Paper.pdf



I. High frequency trading (HFT)

Questions:

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

“High Frequency Trading” or “HFT” is not of itself a trading strategy but rather a broad categorisation of the automation of a number of trading strategies that has enabled market participants to trade more frequently and efficiently.

Automation has permeated all aspects of equities trading; whether a proprietary trading firm using its own funds to act as a market maker by providing two way liquidity, a multi-desk bank, a broker enabling its clients to have access to more sophisticated trading tools and faster access to trading venues or a retail client using on-line execution services.

Any well functioning liquid market requires firms willing to provide liquidity and make public prices. Traditionally, specialist and manual market makers have carried out this function by quoting two way prices and generating revenue from the spread. As the market has evolved, the way in which the provision of liquidity is implemented has changed. In particular, a new breed of liquidity providers using algorithms has replaced the specialists and manual market making firms. As previously, these liquidity providers post two sided orders onto electronic orders books, providing liquidity and making a public price.

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liquidity providers to the benefit of other market participants through increased liquidity, more efficient price formation and reduced spreads.⁵

Greater automation can also be seen in other trading styles or techniques, such as statistical arbitrage. This has developed and evolved from pairs trading into multi-security techniques. In a statistical arbitrage strategy, under- and over-priced securities resulting in liquidity imbalances are identified according to the firm's statistical analysis. These are then respectively bought and sold, thus providing liquidity into the market which corrects liquidity imbalances and pricing anomalies. Whilst time horizons may vary widely, greater automation has increased the number of securities that can be analysed and the frequency with which firms can implement their statistical arbitrage strategies. As noted above, the significant decrease in the time taken to place and process orders has decreased the risk associated with placing an order into the market. As a result, firms using statistical arbitrage strategies are able to more confidently counteract smaller liquidity imbalances and pricing anomalies.

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2. Please provide evidence on the amount of European trading executed by HF traders (including the source(s) of that information).

CESR is particularly interested in statistical material on:

- a) market share of HFT in orders/trades in Q1/2010 (and, if possible compared to 2008 and 2009),**
- b) average trade size in Q1/2010 (and, if possible compared to 2008 and 2009),**
- c) market participants,**
- d) financial instruments traded (including cash vs. derivatives).**

If possible, please distinguish between HFT on transparent organised trading platforms and on dark pools of liquidity.

We do not classify our participants as HFT. All participants of the BATS Europe MTF are subject to the same transparent participation criteria and rules. No participants or class of participants has any special privileges or obligations. We should also note that whilst we maintain detailed market share information at a participant level, we have no way of providing reliable market share information for specific strategies.

⁵ Please see the data provided in section V in relation to the impact of tick sizes changes. This data also highlights that as the BATS Europe market has matured and more market participants (including automated liquidity providers) has joined the MTF spreads have decreased and liquidity at the inside has increased.



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

We consider that greater automation is the natural evolution of traditional trading strategies, such as market making and statistical arbitrage. Greater automation has also enabled brokers to provide more sophisticated tools to their clients in order that they can trade more quickly and efficiently. Brokers offer on-line execution to their retail clients and DMA and algorithms to their institutional clients.

4. In your view, what is the impact of high frequency trading on the market, particularly in relation to:

- market structure (eg. tick sizes);
- liquidity, turnover, bid-offer spreads, market depth;
- volatility and price formation;
- efficiency and orderliness of the market?

Please provide evidence supporting your views on the impact of HFT on the market.

In its June 2009 report on the *Impact of MiFID on equity secondary markets functioning* (Ref: CESR/09-355), CESR notes that “when considering the impact of MiFID, it is important to bear in mind other drivers that have had an impact on the trading services market. The market has faced unprecedented volatility over the past 12 months and dealt with defaults of major counterparties.”

We discuss in our responses to other questions how we believe that competition, innovation and the automation of a number of trading strategies, including automated market making, have increased liquidity and reduced bid-offer spreads. We also believe that periods of volatility are smoothed as firms are able to trade in smaller increments. In addition, automated liquidity providers and statistical arbitrageurs have had a positive impact on the efficient alignment of prices between different trading venues. We also consider it important to note that liquidity did not disappear from the equity markets during the global financial crisis.

BATS Europe launched its MTF at the end of October 2008 and, whilst it is difficult to separate the impact of the global financial crisis from the increase in competition in Europe following the implementation of MiFID, we believe in the principle that competition drives innovation and greater efficiency. We would point to the various studies relating to the US market demonstrating increased liquidity, lower volatility and tighter bid-offer spreads; all of which create a more efficient and orderly market.

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

We believe that greater automation has benefited both individual market participants and the overall efficiency of the market. Specifically, we would note the decrease in time taken to place an order into the market, trade and receive confirmations. This decreased risk associated with placing an order into the market allows greater capital to be deployed and are firms are able to trade more frequently resulting in increased liquidity. In addition, firms acting as liquidity providers or employing statistical



arbitrage techniques are more quickly able to identify and correct liquidity imbalances and pricing anomalies both in individual securities or groups of securities and across multiple trading venues resulting in a more efficient price formation process.

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

As noted above, we consider that the term “HFT” is too broad to be meaningful, as it does not reflect the multitude of automated trading strategies, which have different purposes and effects.

With respect to automated market making activities, these may be performed by, for example, individual proprietary trading firms or within the broker-dealer operations of large investment banks. This type of activity is typically low financial risk to the extent that positions are held for a short period of time and the firm or desk typically holds a flat position overnight. Statistical arbitrage may be carried out by a wide range of firms, including broker-dealers, hedge funds, etc. The financial risk may be higher as positions may be held for longer. However, given the liquidity available in the equity markets, the risk will be less than that associated with similar strategies in less liquid securities.

Some commentators have raised concerns that “HFT” or rogue algorithms could overload trading systems, and that the automated nature of the systems increases the damage that could be caused. Clearly, trading firms need to have in place appropriate systems and controls to manage automated order flow. Similarly, trading venues need to ensure that they can monitor trading activity and act quickly to maintain the integrity and orderliness of the market by switching off any member.

There are internal systems implications for trading venues where members are trading more frequently, as they will need to be able to accept and handle increased order message traffic. Trading venues need to ensure that they have sufficient capacity and are designed to handle the level of messages generated by all market participants and effectively cope with spikes during periods of volatility.

In addition, where trading firms post liquidity and frequently amend or update resting orders to take into account new pricing information there is an impact on external market data, which is taken by all market participants. As the data generated by trading venues increases, market participants (including trading firms and data vendors) must ensure that they are able to receive and process this data.

Some commentators have suggested that there is an increased risk of market abuse or indeed that certain automated trading strategies are of themselves market abuse. We do not agree with these assertions. Unscrupulous individuals or firms may seek to employ abusive strategies through a number of means. These may include insider dealing, front running or market manipulation.

We believe that trading firms should have choice in how to organise their businesses, which trading styles and strategies to use, and how they utilise technology to implement these. Similarly, we believe



that innovation should be embraced rather than stifled. Having said that, as new trading strategies and technology emerges, monitoring and surveillance must keep pace. We consider that regulators should focus on trading behaviour and the outcome of that behaviour, rather than on trading strategies or the way in which those strategies are implemented. It is imperative that trading venues play their part in effectively monitoring the behaviour of all of their members and that regulators have access to sufficient data and tools so that disorderly trading can be prevented and so that those deliberately abusing or manipulating the market are disciplined.

Commentators have also suggested that a fragmented market is more open to abuse. We would agree that surveillance and fraud detection are more complicated in a fragmented trading environment. However, we believe that the additional risks that this may bring can be appropriately addressed and that any residual risk is not outweighed by the overall benefits to the market that arise as a result of competition.

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

BATS Europe considers that technological advances are beneficial to the market overall and that greater automation of equities trading is a natural evolution. We believe that such automation leads to a more efficient, liquid market with tighter bid-offer spreads. Similarly, the greater automation of trading strategies such as automated market making and statistical arbitrage ensure that price dislocations between trading venues are quickly identified and aligned. We consider that innovation should be embraced rather than stifled. However, we believe it is imperative that trading venues keep pace with technological developments in order that their systems are resilient and reliable. We also believe that surveillance tools must keep pace in order to identify and where possible prevent any abusive behaviour.

8. How do you see HFT developing in Europe?

BATS Europe would expect the automation of a number trading strategies to increase and we would expect the number of firms using these strategies to increase. Similarly, we would expect the range of securities traded by, for example, automated liquidity providers to increase.

9. 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?

We believe that regulators should focus on trading behaviour and the outcome of that behaviour, rather than on trading strategies or the way in which those strategies are implemented.

We consider that regulators need to be aware of advances in trading techniques and strategies, and that regulation should keep pace with these developments. However, we do not believe that specific regulation should be put in place with respect to automated trading.



Rather, all trading firms need to ensure that their own systems are built with safeguards in place to prevent any risks that could arise as a result of greater automation, including “rogue algorithms”. Where offering services to clients, brokers must also ensure that they have in place controls that are appropriate to the client and that they are able to detect and where possible prevent any potentially disorderly or abusive behaviour.

Similarly, trading venues need to ensure that their systems keep pace with new trading techniques and strategies. Trading platforms must be resilient and reliable with sufficient capacity to handle increased message traffic without becoming overloaded. In addition, trading venues should have monitoring in place to identify any potential issues and the ability to isolate any member that may impact the orderliness of the market and switch off trading by that member.



II. Sponsored access

Questions:

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

Sponsored Access provides an additional means of accessing trading venues, thereby increasing liquidity on that venue.

Sponsored Access is a derivative of DMA. Under DMA, a client is subject to the latency of its broker's network and internal systems. Typically, Sponsored Access is favoured by firms who wish to maintain their own network connectivity to trading venues and minimise latency.

There may be a number of reasons why the client of a broker may prefer DMA or Sponsored Access rather than direct membership of a trading venue. Brokers provide a variety of services to the client in addition to market access, such as custodial services, stock loan, financing, research and other forms of execution services. In addition, where a trading venue operates volume tiers, there may be benefits to a smaller firm becoming a DMA or Sponsored Access client to leverage the volume discount of a larger firm which is a member.

2. What risks does SA pose for the orderly functioning of organised trading platforms? How could these risks be mitigated?

Sponsored Access is a form of electronic access to trading venues. As with any form of access, there must be appropriate controls in place to manage any risks specific to it. In the absence of proper controls, Sponsored Access – like any other form of access – poses risks to trading venues. With respect to Sponsored Access, trading venues can and should take steps to mitigate any risks posed by Sponsored Access by putting in place appropriate controls, including risk management controls; operation controls; legal controls; and monitoring.

Trading venues need to ensure that they operate orderly markets and, as such, have an interest in ensuring that the order flow reaching their order books is appropriately controlled. Trading venues should ensure that an appropriate legal framework is put in place with respect to Sponsored Access and it is clear that the Sponsoring Broker is responsible for all activity conducted in its name.

Trading venues should provide risk management tools to Sponsoring Brokers that help the Sponsoring Broker control its client's order flow. With respect to pre-trade validation checks, BATS Europe, for example, has made available functionality that validates the client's orders according to parameters specified by the Sponsoring Broker prior to those orders being entered onto the order book. Where an individual check fails validation, the order is rejected. These include fat finger checks (such as maximum



notional per order, maximum number of shares) as well as operational controls that enable the Sponsoring Broker to control which markets and securities its client can trade in, by specifying permitted markets and uploading a restricted list. In addition, BATS Europe makes available functionality to limit the cumulative notional exposure of the Sponsoring Broker (including executed orders plus open orders) and also to send a notification when a specified percentage of the cumulative limit is reached. The parameters are set by the Sponsoring Broker and the client has no access to these. In addition, the Sponsoring Broker is able to block and/or cancel orders placed by the client. These features are available through a web interface and an Application Programming Interface (“API”) which enables the broker to build control of the parameters into its own systems.

Trading venues should also provide access to information relating to the client’s activity in order that the Sponsoring Broker can effectively monitor that activity and its credit exposure to its client. BATS Europe, for example, makes a “DROP” copy of all of the client’s activity available to the Sponsoring Broker. BATS Europe expects Sponsoring Brokers to monitor this in real-time and intervene where necessary, for example if the client were to exceed cumulative trading totals set internally by the Sponsoring Broker.

Trading venues themselves should have in place appropriate systems and controls to effectively monitor trading activity on their markets. In addition to monitoring for abusive behaviour, these tools should also enable the trading venue to identify behaviour that might impact the orderliness of the market. Trading venues should have the ability to intervene unilaterally where necessary, for example, by blocking access and/or cancelling open orders. Similarly, trading venues should enable Sponsoring Brokers to have access to a “kill switch” for their clients.

3. What risks does SA pose for sponsoring firms? How should these risks be mitigated?

The Sponsoring Broker has legal and reputational responsibility for the trades conducted in its name by its client.

Under a typical DMA model, the client’s order passes through the systems of the broker prior to being entered onto the trading venue’s order book. As a result, the broker is able to conduct pre-trade validation checks prior to the order being entered onto the order book. By contrast, in a Sponsored Access model, the client’s order does not first pass through the systems of the Sponsoring Broker. As a result, in the absence of any pre- and post-trade controls, there is an increased risk of error trades and the Sponsoring Broker’s ability to effectively monitor its client would be impaired.

In order to mitigate these risks, Sponsoring Brokers can put in place a number of controls. In the first instance, a Sponsoring Broker will need to conduct appropriate due diligence on its client, including whether Sponsored Access is a suitable service for that client and the types of systems and controls in place at the client. In addition, it is important that the Sponsoring Broker has access to a mechanism over which it has unequivocal control to apply pre-trade validation checks and to a complete audit trail of activity conducted by its client in its name in order to monitor that activity. Sponsoring Brokers should



also have the ability to block their clients' access to a trading venue where necessary, for example, if credit risks limits would otherwise be breached. BATS Europe has taken the view that, as a trading venue, it should make all of this functionality available to Sponsoring Brokers.

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.**

We believe that additional risks arise where there is a lack of clarity both with respect to the type of activity that should be classified as Sponsored Access and the roles and responsibility of the client, Sponsoring Broker and the trading venue in a Sponsored Access model. In particular, a lack of clarity could cause Sponsoring Brokers and trading venues to compete for business to the detriment of appropriate controls.

In developing our Sponsored Access product, we carefully considered and set out the following responsibilities:

Trading venue must:

- ensure that it meets its own regulatory requirements;
- ensure the orderly functioning of the market through the provision of rules, guidance, and pre- and post-execution controls or functionality; and
- monitor the market and take actions, as appropriate, to maintain the orderly functioning of the market, including the ability to separately identify activity conducted by the Sponsored Client in the name of the Sponsoring Broker.

Sponsoring Participant must:

- ensure that it meets its own regulatory requirements and those applicable to it as a participant of BATS Europe;
- conduct appropriate due diligence on prospective Sponsored Clients, including only offering Sponsored Access to suitable prospective Sponsored Clients (e.g. those who are competent, conversant with the rules and have suitable systems and controls);
- make use the pre-execution controls provided and impose suitable levels, tailored to the individual Sponsored Client; and
- make use the DROP COPY functionality provided and monitor the activity of the Sponsored Client, including its ongoing suitability and the effectiveness of the pre-execution controls.

Sponsored Client must:

- be competent and suitably experienced;



- have in place appropriate systems and controls, taking into account the nature and scale the Sponsoring Client's business;
- be familiar and comply with the BATS Europe rules and guidance;
- provide the Sponsoring Broker with sufficient access to monitor the Sponsored Client's trading activity on BATS Europe; and
- take reasonable measures to prevent unauthorised use of its access to BATS Europe.

We take the view that trading venues should compete for business on the quality of the service they provide. For example, where latency is a key factor, BATS Europe has taken the approach that it should develop and offer low latency pre-trade controls and low latency access to information about trading activity rather than, for example, reducing latency through having fewer validation checks in place.

5. Are there other market wide implications resulting from the development of SA?

We believe that Sponsored Access has evolved as a form of access designed to suit certain trading firms where latency is a key consideration. Provided that appropriate controls are in place, we consider that Sponsored Access has a positive impact on the market through the provision of greater liquidity.



III. Co-location

Questions:

1. What are the benefits of co-location services for organised trading platforms, trading participants and clients/investors?

The main benefit of co-location for a trading firm is the ability to place its own trading systems in close proximity to the matching engines of a trading venue. This enables the trading firm to reduce the time taken to receive market data from the trading venue and to place orders into the market, thus both reducing the risk associated with placing orders and enabling the firm to trade more frequently.

Increased trading activity leads to a more liquid market with more efficient pricing, to the benefit of other market participants and the trading venue itself.

Firms have different trading styles and strategies. As a result, they will have different requirements. A market benefits from a broad range of trading firms and styles. Therefore, we strongly believe that firms should be able to choose where to locate their systems and how they connect to a trading venue to suit their business, in the same way they can choose trading systems and trading styles to suit their needs.

Some commentators have suggested that co-location conveys unfair advantages on certain firms. Any firm can choose to invest in co-location. Similarly, any firm can choose to hire the best analysts or invest in technology to put in place automated trading strategies. To this extent, any benefit that may be derived from any of these can be replicated by any firm.

We would note that there are two components to latency. The first component of latency is the round trip latency of the trading platform, which in a fair trading environment should be the same for all market participants. The second component of latency is propagation delay, which is how long an order takes to travel from the participant's system to the trading platform (and for the acknowledgement, execution or cancel message to return) and this will vary according to distance and the type of connectivity used.

BATS Europe makes public latency statistics for its trading systems.⁶ These relate to the performance of BATS Europe's systems and apply to all participants, whether or not they are co-located. With respect to the "standard" latency advantage of co-location, a firm co-locating could reduce latency to the figures we quote at our edge switches in addition to the customer's own circuit and hardware latency.

⁶ http://www.batstrading.co.uk/resources/participant_resources/BATSEuro_Latency.pdf



We believe there would be benefits to market participants if there were accepted standards in measuring and advertising latency figures. This would aid transparency and enable market participants to more accurately compare different trading venues and the connectivity options available to them.

2. Are there any downsides arising from the provision of co-location services? If yes, please describe them.

In a fragmented trading environment, a firm will need to choose where to locate its systems such that it has access to all of the markets on which it wishes to trade, and co-locating with many venues may become prohibitively expensive. If a firm considers that proximity is a key factor for its trading style, it may decide that the benefits outweigh the costs of being co-located with multiple trading venues.

3. What impact do co-location services have on trading platforms, participants, and the wider market?

Co-location provides firms with the option of locating their trading systems close to a trading venue's matching engine where speed is an important factor in their trading styles.

Trading venues and market participants benefit from greater liquidity which leads to tighter spreads and a more efficient market.

4. Does the latency benefit for firms using co-location services create any issues for the fairness and efficiency of markets?

As noted above, any firm can choose to invest in co-location. Therefore, any benefit that may be derived from co-location can be replicated by any firm. Similarly, firms are not required to co-locate, which allows firms to decide whether the benefits to their own business outweigh any costs. We believe that co-location creates market efficiencies for firms even if they do not co-locate. Those firms and their clients benefit because the trading strategies employed by co-located firms ensure that at any given moment a security is being traded at its fair value, which translates into efficient pricing when a non-co-located firm/client enters the market to buy or sell a security.

5. In your view, do co-location services create an issue with the MiFID obligations on trading platforms to provide for fair access?

Article 14(4) of MiFID provides that: "investment firms or market operators operating an MTF [must] establish and maintain transparent rules, based on objective criteria, governing access to its facility".

Provided that co-location is available on a non-discretionary basis, we do not consider that it is incompatible with the MiFID fair access obligation. However, where a trading venue provides co-location services, we believe that there would be benefits to market participants if the prices for co-



location were made public as this would help ensure non-discriminatory pricing and enable trading firms to compare prices between different trading venues.

In addition, we believe there would be benefits to market participants if there were accepted standards in measuring and advertising latency figures. This would aid transparency and enable market participants to more accurately compare different trading venues and the connectivity options available to them.

6. 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.

No. As a matter of course, trading venues should maintain high regulatory standards and should have appropriate organisational and administrative arrangements in place, including with respect to conflicts of interest.

Where a trading venue has direct control over co-location space, it should ensure that it does not act in a way that is incompatible with the fair access obligation in MiFID, and indeed the necessity of maintaining high standards of conduct.

Whilst commentators have focussed on co-location, we would however highlight that there may be other ways in which a trading venue can control and/or generate revenues in this regard. For example, requiring all trading firms accessing the trading venue to use a single telecommunications provider.

BATS Europe does not itself offer co-location but co-location space is available through third party providers in the same data centre. BATS Europe allows its participants to choose their network connectivity (e.g. co-location, extranet, or directly connected) and does not require participants to use a single provider. Similarly, we do not set the fees or generate any revenue from the leasing of co-location space by third parties to our participants. We firmly believe in the benefits of competition. With respect to the provision of co-location space or telecommunications, we believe there are benefits for our participants in having choice of multiple competing providers, both in terms of pricing and quality of service.



IV. Fee structure

Questions:

1. Please describe the key developments in fee structures used by trading platforms in Europe.

Competition introduced by MiFID – and, indeed, even the threat of competition prior to the implementation of MiFID – has put pressure on the incumbent European exchanges to reduce fees. As a result, market participants are generally benefiting from lower direct execution costs. In addition, a number of MTFs, such as BATS Europe, offer standard pricing that is comparable or better than the top volume tier offered by the incumbent exchanges to their members. In the case trading venues like BATS Europe, a broader cross-section of firms – regardless of trading volume – is able to qualify for pricing previously reserved for the top ranking members of the incumbent exchanges.

It is important to note that trading venues' fee structures are by their nature designed to maximise revenue by incentivising firms to trade on one venue rather than another. Whilst most commentators primarily refer to direct execution costs, we would also note that the majority of the exchanges and MTFs levy additional charges on their members for ancillary services, such as one-off and ongoing connectivity costs, application and on-going membership fees, port fees, testing fees, “excessive system usage” fees, market data fees, etc. By contrast, at this time, BATS Europe does not charge for any of these services.

Trading venues may also use a number of other methods to incentivise their members, including:

- Pricing tiers
- Specific incentives for subsets of participants (for example, market maker incentive schemes)
- Jump balls
- Cross-subsidisation (including by geography, service or product)
- Liquidity agreements
- Client specific pricing
- Prioritisation of specific clients in co-location offerings

2. What are the benefits of any fee structures that you are aware of?

As noted above, all trading venue fee structures are by their nature designed to maximise revenue by incentivising firms to trade on one venue rather than another.

There has been much discussion about the maker/taker fee model, which has been popular in the US equities market for some time and has been or continues to be employed by both MTFs and some of the major European exchanges. We believe that the maker/taker model benefits market participants through a more liquid market and greater competition between liquidity providers, resulting in a more efficient market with tighter spreads. We strongly disagree with commentators who have suggested



that the maker/taker model allows for risk free trading and creates phantom liquidity. Any strategy where there is an order placed in the market, particularly a resting order, by definition, cannot be risk free. The automation of liquidity provision enables firms to more frequently update their orders to reflect changes in the market. However, these orders are firm and are not “phantom” liquidity.

By contrast, any firm, whether using automated trading techniques or not, that attempts to mislead the market through placing orders that are not indicative of genuine trading interests is guilty of manipulation and should be appropriately disciplined. As noted previously, it is imperative that trading venues have effective and appropriate arrangements in place to identify any disorderly or abusive behaviour and to intervene where necessary to maintain the integrity and orderliness of the market.

3. Are there any downsides to current fee structures and the maker/taker fee structure in particular? If yes, please describe them.

We believe that the complexities in certain fee or incentive structures do not help market participants compare services offered from competing trading venues, nor are all fees or benefits necessarily transparent.

Whilst it is legitimate that fee structures can be used to competitive advantage, it is imperative that they do not undermine the orderliness and fair functioning of the market. To that end, we believe that fee structures – execution fees, ancillary fees and any other related incentives to encourage trading on a particular venue – should meet the following tests:

- they should be transparent;
- they should be non-discriminatory;
- they should be consistent with a reliable price formation; and
- they should not be designed to encourage trading for improper purposes.

4. What are the impacts of current fee structures on trading platforms, participants, their trading strategies and the wider market and its efficiency?

As noted above, we believe that the maker/taker model benefits market participants through a more liquid market and greater competition between liquidity providers, resulting in a more efficient market with tighter spreads.

All of the major European exchanges make use of volume discounts within their pricing schedules. In these circumstances, the best prices will only be available to firms who, for example, execute more than a set notional value on the trading venue. Inherently, such discounts are aimed at larger trading firms who are able to trade more notional value. Provided such pricing is available on transparent and non-discretionary terms, any firm should be able to qualify. However, in practice, such tiers may result in small to mid-tier trading firms preferring to trade in the name of a larger trading firm (either through DMA or Sponsored Access) in order to benefit from the most preferential pricing tier.



5. How important is the fee structure of a trading platform in determining whether to connect or not to it for trading. Please elaborate.

The primary consideration will tend to be the liquidity available on the trading venue. A secondary consideration would likely be the costs to connect to that trading venue (including application costs, connectivity costs, market data costs, etc).

6. Do you consider that the fee structures of trading platforms should be made public to all market participants? Please provide a rationale for your answer.

Yes. In order to aid comparability between trading venues and to ensure that fees are non-discriminatory, it is important that fee structures are made public. This should extend to both direct execution fees and other fees associated with access to and use of a trading venue. Where there are deviations from the public fee structure (for example, special arrangements), we believe these should also be made public.

7. Is there a role for regulators to play in the fee structures? If yes, please describe it.

We believe that regulators should ensure that fee structures do not undermine the orderly functioning of the market or fair competition. However, we do not believe that regulators should approve individual fee levels.

V. Tick size

Questions:

1. In your view, what has been the impact of smaller tick sizes for equities in Europe on the bid-ask spreads, liquidity, market depth and volatility of these markets? Are there any spill-over effects on derivatives markets?

Figure 1 below shows spread and depth data on BATS Europe for the FTSE 100 since 1st June 2009, when we began collecting this data. We show three spread figures – the inside spread (the “touch”) and the effective spreads at €15,000 and €30,000.⁷ We note that there is no obvious detriment to depths as a result of the harmonised tick schemes, which were introduced in August 2009. We would also note a steady reduction in spreads and an increase in depth, particularly in 2010, which is a reflection of increased participation on the platform rather than tick size changes.

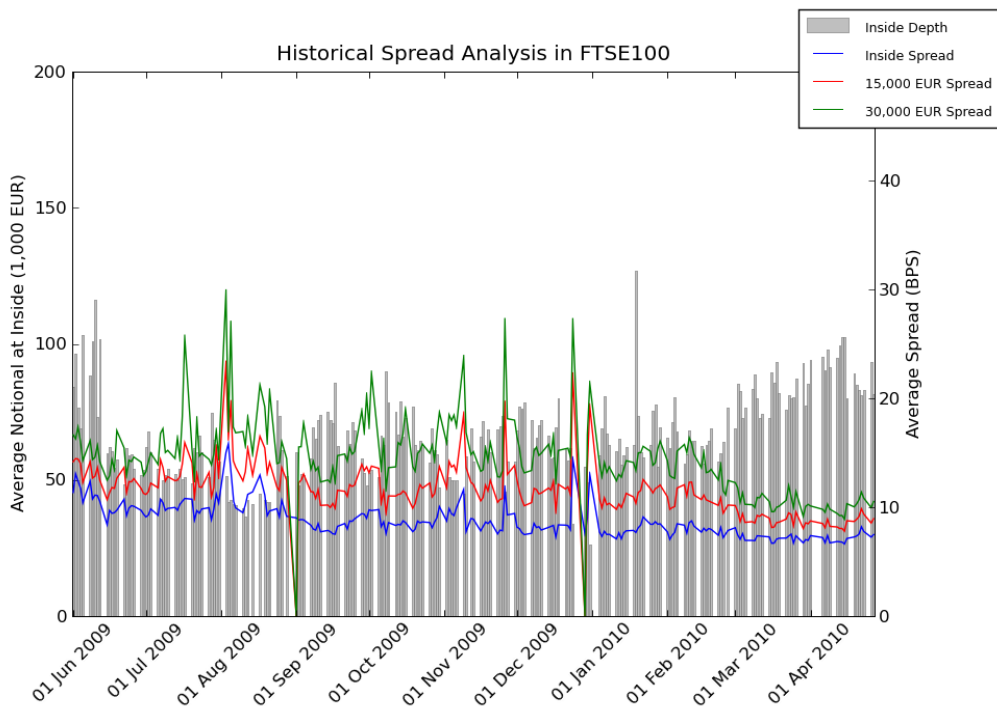


Figure 1

⁷ The Effective Spread is calculated as follows:

- Use the previous close price to determine the number of shares equivalent to a notional amount.
- For each side of the BATS Europe book calculate the Volume Weighted Average Price (VWAP) you would receive for a market order of this many shares.
- Effective Spread = (VWAP buy – VWAP sell)/midpoint of the inside market.



BATS Europe can provide similar data for other market segments on the BATS Europe MTF, however we note that there was no significant change in BATS Europe tick sizes for the Euronext and Deutsche Börse market segments as a result of tick size harmonisation so there is little to be gleaned from this data. We do see a significant reduction in spreads and increase in depth on the Swiss and Nordic segments since tick scheme harmonisation. However, this is reflective of increased participation on the BATS Europe order books, and not necessarily directly attributable to tick size changes.

2. What are the benefits/downsides of smaller tick size regimes for shares in Europe?

There is a balancing act in setting tick sizes. A tick size that is too large may result in liquidity removes buying at higher prices and selling at lower prices than they would were the security quoted in finer tick sizes. Conversely, tick sizes that are too small create thin liquidity for a security across many price levels.

We should note that the primary consideration in the recent industry-led initiative was to create simplified tick schemes that could be used consistently by all European trading venues whilst aiming to ensure that tick increments in each case were appropriate, rather than solely seeking to implement finer tick sizes.

3. Is there a need for greater harmonisation of tick size regimes across Europe? Please elaborate.

Historically, tick sizes have typically been set by the primary market. Depending on the exchange, tick sizes were allocated according to varying – and not always transparent – factors, including market capitalisation, index membership, security type and, in some cases, on an individual security basis.

In a pan-European trading environment, there are clearly benefits to market participants and the orderliness of the market if tick schemes are simple and common across platforms. For example, where a broker is trading a security on multiple European trading venues, a common tick scheme reduces the complexities associated with order routing and the consolidation of market data from multiple sources. With this in mind, a number of the MTFs with the broking community (through AFME) and later FESE attempted to create simplified tick schemes that could be used by all pan-European trading venues. As noted above, the primary consideration for the group was to create simplified tick schemes that could be used consistently by all European trading venues whilst aiming to ensure that tick increments in each case were appropriate, rather than solely seeking to implement finer tick sizes.

Initially the group focussed on large cap securities. The concept of “spread leeway”⁸, as introduced by Deutsche Börse, was used to analyse the current tick schemes and to propose simplified tick schemes. During this time, BATS Europe ran a pilot scheme in a selected number of securities identified as most

⁸ Spread Leeway = (Inside Spread / Tick size) – 1



constrained by their current tick size. We analysed the impact of the changes on spreads as well as depth and average trade size in comparison with a control group of securities.⁹

Since the agreement between all parties to the new tick schemes, the changes have been rolled out by a number of exchanges and MTFs for large cap and most major mid cap European equity securities and we are content that market participants worked together to implement a sensible solution. We believe it will be useful to analyse the impact of the changes in due course and make any amendments as necessary.

We would, however, note that there remain a number of notable exceptions; both in terms of the trading venues that have implemented the new tick schemes and the coverage of the tick schemes (both indices and products). With respect to the remaining mid cap and small cap equity securities, FESE undertook to investigate whether a harmonised regime could be put in place but has concluded that harmonisation would not work for smaller securities on a cross-border basis. We disagree with this analysis and believe that we should continue to work to create a harmonised tick scheme for the remaining mid cap and small cap equity securities.

4. Is there a role for regulators to play in the standardisation of tick size regimes or should this be left to market forces?

We believe that the standardisation of tick sizes should be left to market forces. However, we are concerned that a number of trading venues have not committed to the agreed tick schemes for large and most mid cap securities, and have discontinued work to harmonise tick schemes for the remaining mid and small cap securities. To this end, we believe it would be helpful if regulators support industry efforts to harmonise tick schemes as Best Practice.

Within this context, we would also note the industry-led initiative to create a common symbology for pan-European securities which seeks to reduce the complexities associated with cross-border trading by allowing market participants to use a single logically derived symbol for a security on any European trading venue. Similarly, it would be helpful if regulators could support this type of initiative.

5. Have organised markets developed an appropriate approach to tick sizes?

As noted above, we believe that the industry has worked collaboratively to create an appropriate tick scheme framework to be used by European trading venues. However, not all trading venues have implemented the new tick schemes, which undermines the goal of harmonisation. In addition, the coverage is currently limited to large cap and a number of mid cap securities. Despite the recent conclusion by FESE, we believe it is important to continue to work to create harmonised tick schemes for

⁹ The study can be found at: http://www.batstrading.co.uk/resources/publications/BATSEuro_Tick_Size_Paper.pdf



the remaining mid cap and small cap equity securities. We would also support the extension of a similar approach to different products.

6. Should regulators monitor compliance with the self-regulatory initiative of the MTFs and FESE? If this initiative fails, do you see a need for regulators to intervene?

As noted in our response to question V. 4 above, we are concerned that a number of trading venues have not committed to the agreed tick schemes for large and most mid cap securities, and have discontinued work to harmonise tick schemes for the remaining mid and small cap securities. To this end, we believe it would be helpful if regulators support industry efforts to harmonise tick schemes as Best Practice.

7. What principles should determine optimal tick sizes?

As noted above, there is a balancing act in setting tick sizes. A tick size that is too large may result in liquidity removers buying at higher prices and selling at lower prices than they would were the security quoted in finer tick sizes. Conversely, tick sizes that are too small create thin liquidity for a security across many price levels.

In addition, we believe that it is important for tick schemes to be harmonised across European trading venues and that they are simple and deterministic. A key objective of the recent industry –led initiative was to reduce the complexities and exceptions within the tick schemes in place at that time.

The industry group involved in creating simplified harmonised European tick regimes grouped securities and used the concept of “Spread leeway” to analyse the tick schemes being considered. In summary, a low Spread Leeway suggests that the spread of a security is being constrained by the tick size while a high Spread Leeway suggests an inability to form price levels on the order book. We believe that this is a reasonable indicator to determine an appropriate tick size for a security.



VI. Indications of Interest (IOIs)

Questions:

- 1. Please provide further information on how IOIs are currently used in European markets by investment firms, MTFs and RMs?**
- 2. Which are the key benefits/downsides of such IOIs? Please provide evidence to support your views.**
- 3. Do you consider that MiFID should be amended to clarify that actionable IOIs should be subject to pre-trade transparency requirements?**
- 4. Do you see circumstances where it would be appropriate for IOIs to be provided to a selected group of market participants? Please provide evidence/examples to support your views.**

BATS Europe does not send out IOIs with respect to non-displayed liquidity on its order books and has no intention to do so.

We have no further comments in relation to this section of the Call for Evidence.