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COMMITTEE OF EUROPEAN SECURITIES REGULATORS

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Answers provided by

optiver

CALL FOR EVIDENCE

Micro-structural issues of the European equity markets

April 30, 2010

Committee of European Securities Regulators

11-13 avenue de Friedland

75008 Paris, France

Regarding: Micro-structural issues of the European equity markets Ref.: CESR/10-142

Dear CESR,

Optiver supports CESR's evaluation of equity market structure and we appreciate the opportunity to comment on the Micro-structural issues of the European equity markets. Please do not hesitate to contact us at +31 20 708 7600 if you have any questions.

Introduction

Optiver is a global market maker. Currently, we provide liquidity in Europe, U.S. and Asia. Optiver's headquarters are located in Amsterdam, with additional offices in Chicago, Sydney and Taipei. By posting two sided, continuous markets to the global exchanges and taking advantage of relative pricing differences between related securities, we narrow the spread which benefits pension funds, institutions, retail investors and all other market participants. By doing so Optiver adds value for the investing public. We concentrate on understanding and simplifying the relationships between financial products, then making the most competitive markets in them. Our trading strategies utilise real time information, advanced technology, transparent risk management systems and continuous innovation.

Providing liquidity in various equities and derivatives exchanges, Optiver Europe is actively trading on Euronext Amsterdam as a primary and competitive market maker. Optiver Europe is one of the biggest players in the Euronext Cash segment (equities) and is active on all other European equities and derivatives platforms, such as the London Stock Exchange, Xetra, Eurex, Virt-X and Chi-X.

Optiver believes it is important to take note of the current market structure and regulatory regime which have matured and adapted to foster growth, promote transparency, product innovation, and competition. As a result, many firms, including Optiver, have invested heavily in human capital and technology to create businesses that compete to provide liquidity at historically low cost to investors. Optiver and its competitors reduce volatility, facilitate price discovery, and help maintain orderly, liquid markets for investors. As a result, investors have the ability to efficiently transfer their trading or portfolio risk, even in times of significant stress and volatility.

1 High frequency trading (HFT)

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

Optiver supports the view that HFT is not a trading strategy for itself, but can be applied to a variety of trading strategies, which all have in common high portfolio turnover and the need for fast, high capacity market-data feeds and trade matching and quoting engines. Generally, the relevant strategies fall into two categories[1]:

1. Electronic Market Making: make two-sided markets. By applying this strategy, firms benefit from the spread between the prices they buy and sell (option market making, quoting stocks and futures etc).

2. Statistical Arbitrage: Strategies that identify and attempt to capitalize on inefficient pricing of financial instruments often characterised by temporary aberrations in the relationships between two instruments. See also Rosenblatt Securities (September 30, 2009 page 2 and 3) for more details.

1.2 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.

Optiver does not dispose of own information or statistical data as requested. Nevertheless, we include some figures as obtained by publicly available articles from the industry.

US: If one takes the estimates of Tabb Group and Aite Group to be valid, roughly 2/3 of all trades in traditional shares of company stock now take place in algorithmically-driven high-frequency trading (Data Sweep, p. 23, August 17, 2009). If you back off to the more conservative estimate of Celent, it's was 42 percent this year, 50 percent in 2010[2].

Europe: According to information as communicated by the Financial Times, high-frequency traders now make up a significant – hard to quantify – part of the market[3]. It is estimated by Rosenblatt Securities to be approximately 30 to 40% (Rosenblatt securities, September 30 2009, page 7).

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

A core function of a Market Maker (MM) is the continuous quoting and therewith the provision of a two-sided market to ensure liquidity and execution certainty for investors. Technology evolution in consonance with sophistication of pricing has driven the development to more and more automated trading practices. The employment of automated high speed trading enables MMs to trade in higher volumes and higher speed and with tighter spreads and therewith assure liquidity and the possibility for market participants to transfer their risks. HFT is also facilitating the processing of market data, the timely reaction to changing market conditions and therewith enables to manage risks. Any form of legislation which make systems slower could harm HFT and especially MMs. In strict price time priority markets electronic MMs' success depends on them being among the first to post the best available prices.

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[1] Rosenblatt securities: An In-Depth Look at High-Frequency Trading; September 30 2009

[2] http://www.securitiesindustry.com/monday_monitor/-24434-1.html?ET=securitiesindustry:e1782:181017a:&st=email&zkPrintable=true

[3] http://www.ft.com/cms/s/0/495092a0-7f8d-11de-85dc-00144feabdc0.html?ftcamp=rss

Optiver therefore agrees with Mr Donohue, chief executive CME, who warned in the Financial Times that *"any attempt to place significant restrictions or limitations on HFT would be harmful to the marketplace and result in less efficient and less liquid markets"*[4].

Tax/fees per trade: HFTs' profit margin per trade is very tiny. Any form of tax per trade would harm the market.

Short selling: Concerns over short selling led to various restrictions on the practice in the U.S. and other markets during the panic in 2008. Beber and Pagano[5], among others, have analyzed these restrictions and found that they were detrimental to market liquidity and failed to support market prices. These findings are reasonable because much, if not the majority, of short selling does not consist of directional bets on the value of a security. Instead, short selling helps markets operate more smoothly in areas such as market making, arbitrage, and statistical arbitrage. Optiver being a MM agrees with the opinion that categorical restrictions on short selling more reduce such benefits than that it prevents any alleged abusive short selling[6].

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

Please see question 1.5.

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

Tick sizes: HFT reduced tick sizes dramatically. The ability to provide liquidity at lower cost is the main driver of reduced tick sizes. This development is mainly caused by technological progress[7].

Lower transaction costs: Due to HFT, transaction costs on an average trade are down in the U.S. from 1.1% a decade ago to 0.33-0.64% today for all market participants, both institutional and retail. HFT cuts costs significantly for everyone [8]. Hendershott, Jones, and Menkveld (2009) results also suggest that algorithmic trading lowers the costs of trading and increases the informativeness of quotes[9].

Non-stop quotes: Even in the depths of the market turmoil everything functioned normally and the investing community (especially retail) were able to execute trades.

Turnover: Volumes have been increased; high-frequency traders (HFTs) add volume to the screen which means that all investors benefit, because they can trade bigger sizes[10].

Bid-offer spreads: Spreads became tighter; rather than harming long-term investors, high-frequency trading (HFT) reduces spreads and provide price discovery. Since a computer can price more accurately, and react quicker, than a trader. The subsequent reductions in latency on exchanges have continued this trend. Therefore HFTs establish the true balance of supply and demand. A recent NYSE Euronext study of quoted spreads shows that spreads have declined markedly in the era of HFT dominance, even when volatility was very high (Rosenblatt securities, September 30 2009, page 25).

Price formation: became more efficient

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[4] http://www.ft.com/cms/s/0/d51296b0-4ded-11df-b437-00144feab49a.html

[5] See Beber, Alessandro and Pagano, Marco, Short-Selling Bans Around the World: Evidence from the 2007-09 Crisis (November 2009). CEPR Discussion Paper No. DP7557. Available at SSRN: http://ssrn.com/abstract=1533163. See also Kolasinski, Adam C. Reed, Adam V. and Thornock, Jacob R., Prohibitions versus Constraints: The 2008 Short Sales Regulations (October 5, 2009). AFA 2010 Atlanta Meetings Paper. Available at SSRN: http://ssrn.com/abstract=1365037.

[6] February 23 2010; SEC comment, http://www.sec.gov/comments/s7-02-10/s70210-54.pdf page 40)

[7] February 23 2010; SEC comment, http://www.sec.gov/comments/s7-02-10/s70210-54.pdf page 8, 9

[8] http://www.ft.com/cms/s/0/1513400e-e8cf-11de-a756-00144feab49a.html

[9] http://www.afajof.org/afa/forthcoming/6130p.pdf page 33

[10] http://www.sec.gov/comments/s7-02-10/s70210-54.pdf, page 7

Reduced volatility/increased liquidity: Market Makers (MMs) reduce volatility by restoring the markets to order since they are required to quote. They create order and increase liquidity and make the market a fairer place to do business.

Efficiency: HFT engage in arbitrage: they prevent pricing abnormalities from materializing and therefore make pricing more efficient.

Direct execution: Trades are executed instantaneously

Orderliness of the market: has substantially improved

Burton Malkiel (Professor of Economics at Princeton University and the author of 'A Random Walk down Wall Street' and 'The Elements of Investing') and George U Sauter, Chief Investment Officer of the Vanguard Group wrote that HFT is a natural part of market evolution[11]. They fully endorse the advantages listed above. Furthermore they state; *"Individual investors are the ultimate beneficiaries when their pension funds and mutual funds can transact large volumes of trades anonymously with great speed and at lower cost".*

Optiver believes in efficiency, transparency and a level playing field. Electronic MMs like ourselves have been a driving force for more efficient technologies in all areas of the trading environment. During this evolution one of the main drivers was improving latency. Due to improved latency HFTs and especially MMs like Optiver could better manage the risk of their open orders in the market and of their position risk. When the latency times improve, MMs are able to make tighter and more liquid markets with more volume while taking on the same amount of risk. These tighter markets are a benefit to all market participants.

1.6 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?

Flash orders: HFT will not pose any risks however, flash orders might. Optiver thinks the HFT debate has been polluted due to the discussion on flash orders which is a separate issue.

US: In the US Flash orders claimed just a shade over 3 percent of all equities volume in the US[12] and the SEC has proposals to eliminate the practice. Also according to Rosenblatt securities (September 30 2009, page 30), Flash orders accounted for only 2.8% of US equity trading in July 2008. Besides; the vast majority of HFT activity occurs in markets that display firm quotes and, unlike flash orders, help investors transact at the best possible price.
Europe: Flashorders are almost entirely absent from the European trading landscape[13]. The nearest equivalent in Europe is a system called Blink, operated by Nasdaq OMX Europe; the difference is that, with Blink, orders sit on its book for 25 milliseconds and are seen by everyone.

Former SEC Chairman also Arthur Levitt Also says: *"While I support the move to ban flash orders because they have the potential to undermine the goals of market competition, that does not mean we should demonize or regulate out of existence all high-frequency trading"*[14].

Optiver is not and has never been involved in trading flash orders. As Optiver strongly believes in transparency and a level playing field we are against flash orders.

Extreme markets: There is the misperception that HFTs are speculators who move markets to extremes. In fact, the vast majority of HFT involves looking for very small arbitrage opportunities, as between futures and cash markets or between the prices of exchange traded funds and their net asset values. These actions **do not** create volatile markets, they close gaps across markets and increase market efficiency[15]. In addition, MMs

[11] http://www.ft.com/cms/s/0/1513400e-e8cf-11de-a756-00144feab49a.html
[12] http://www.tradersmagazine.com/issues/20_301/-104778-1.html
[13] http://www.ft.com/cms/s/0/495092a0-7f8d-11de-85dc-00144feabdc0.html?ftcamp=rss
[14] http://online.wsj.com/article/SB10001424052970204409904574350522402379930.html
[15] http://www.ft.com/cms/s/0/1513400e-e8cf-11de-a756-00144feab49a.html?nclick_check=1

in particular were the ones still quoting prices in the regulated markets during the 2008 turmoil, adding to the ease with which investors could buy and sell.

Algorithms: Some worry that an algorithm might run amuck and overwhelm the markets with a flood of erroneous orders, and maybe even crash the system. Optiver thinks algorithm/order madness are a threat which should not be taken lightly. Algorithmic trading is not restricted to HFT, many position taking firms also engage in it. We believe all firms using algorithmic trading should have the right risk processes in place. It's essential to keep in mind however that most proprietary trading firms are very aware of the risk to their own firm because it's their own money that is at risk. Many HFTs have a number of safeguards in place, both technological and process-based, to address the operational risks from runaway algorithms. Beyond that, there are many safeguards at the exchange level, and the clearinghouse level, to avoid these situations becoming catastrophic risk.

Front running: It's been alleged that HFT is a form of front running, in that people are using technology to detect what other people are doing and get in front of their orders.
Front running is acting on nonpublic information and on customer orders that have not yet been made public to the marketplace. The majority of HFT firms do not have customer orders, there's no possible way that they could be engaged in front running. Effectively what happens is that HFTs perceive an imbalance in the order flow and bids up the price of that asset to reflect the fact that there seems to be, at that moment in time, more buyers than sellers. HFT firms are just reacting to changes in the order book more quickly than some traditional investors.

Optiver believes executing a large order without moving the market is an utopia. A healthy market is supposed to reflect all known information about a stock, including supply and demand. The fact that an investor is buying a large amount of shares obviously impacts demand and should, in an efficient market, trigger a rise in the stock price[16].

Since there are more mechanics, front running is actually less likely thanks to HFT since the buy side is less dependent on a broker who has to show the order to several desks before getting an acceptable offer[17].

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

Highly beneficial. Please see question 1.5.

1.8 How do you see HFT developing in Europe?

Transparency: There is going to be pressure on less transparent over-the-counter (bilateral) trading for example credit markets, to become more transparent, more competitive, and more hospitable to HFT style of trading strategies. This should result in these markets becoming a lot safer, more transparent, efficient and effective.

Central clearing: One of the biggest elements of transparency is central clearing. When all risk is centralized at a clearinghouse, besides reduced risks, transparency is added in a very direct and clear way. A centralized, consolidated clearing platform and settlement infrastructure will also increase market participants exploiting new pan-European trade execution opportunities. (Rosenblatt securities, May 19 2008, page 1)[18].

1.9 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?

Additional restrictions/regulations on HFT firms specifically will harm the market as a whole. Please see question 1.3. However:

[16] http://www.tradersmagazine.com/news/high-frequency-trading-benefits-105365-1.html?pg=4
[17] Making Markets: A Conversation with Five High-Frequency Trading Firms, by Will Acworth of Futures Industry.
[18] http://www.rblt.com/uploads/documents/newsletter/Trading%20Talk%20051908_Security.pdf

Counterparty risk: Optiver considers additional regulations to move OTC trading to market places as desirable. It would be preferable to consolidate all trading in a central order book, subject to central clearing and therewith increase market transparency.

Level playing field: Optiver believes access to trading platforms should remain open and be open on a non-discretionary basis to all market participants willing and able to add orders, and hence liquidity, to the system, be they HFT firms or not.

Also access should be offered and provided to all trading participants on an equivalent basis, allowing participants under the same terms and conditions –including price/trading fees– to access the system on a nondiscriminatory basis.

Some warrant trading platforms, dark pools and internalisers employ market access on a discriminatory basis between market participants. This absence of competition eliminates all possibilities to increase price efficiency. By abolishing competition the end-investor suffers from these current models.

Transparency: Optiver believes in pre-, and post- trade transparency for all trading participants and its relevance in creating a fair and orderly market.

2 Sponsored access

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

For the clients of sponsoring firms the benefits are; faster access to markets, or low latency and administrative and infrastructural work is effectively outsourced to the sponsoring firms. These clients of sponsoring firms add more liquidity to trading platforms which also benefits other participants of that platform.

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

At the moment clients of sponsoring firms are able to benefit from low latency execution whilst avoiding the responsibility of guaranteeing trades. These firms managements are not direct subject to risk and compliance controls. Although our view is not supported by statistical data and widespread survey, we experience a lack of risk and regulatory controls. Such lightly controlled access to markets undermine regulatory requirements and therewith might cause systemic risks for the orderly functioning of organised trading platforms.

Furthermore Optiver believes that all European markets (including the Spanish market) should be open to remote membership so that firms can access the markets in their own names. This way SA would become less relevant and respective risks could be mitigated.

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

Firms which offer direct market access (DMA) are supposed to engage in a 'Know Your Client' check (KYC) to prevent money laundering, fraud and other suspicious activity. Optiver supports the view that to mitigate risks the same regulatory and audit checks should be enforced on all market participants, meaning members of organized platforms as well as clients of sponsoring firms.

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

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

Please see our answer for question 2.2.

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

We mainly have our own memberships with exchanges and only occasionally trade via SA. In Europe generally proprietary firms trade via their own exchange memberships. So the prevalence of SA is less than in the U.S.

As also stated above Optiver believes there shouldn't be any regulatory arbitrage possibilities between sponsored access and direct membership to an exchange. Sponsored access shouldn't have any compliance, risk controls or legal benefits above direct membership to an exchange. This means that the control inbalance between users of SA should be eliminated, so that equal conditions apply.

3 Co-location

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

Co-location is generally available and it is used by those participants (from both the sell and the buy side) that wish to reduce their latency. Co-location allows firms to trade stocks and sometimes options in milliseconds. These kind of alternatives will increase liquidity in Exchanges around the world.

Regulated markets (RMs) and multilateral trading facilities (MTFs) facilitate co-locations on a non-discriminatory basis. To ensure that co-location service is offered in a non-discriminatory basis, these services offered are currently controlled and monitored by the regulated trading venues.

HFT have been a driving force for more efficient technologies in all parts of the trading environment and improved exchange latency being one of them. One of the main drivers for improved latency among the electronic market making community is that of risk. Electronic MMs need to manage the risk of both their open orders in the market place and any positions that have been taken on. By reducing both the time a firm has to wait for a fill notification and the time between a firm deciding to move or cancel an order and when that action is taken at the trading venue, MMs can better manage their open order and position risk. As the latency times improve, MMs are then able to make tighter and more liquid markets while taking on the same amount of risk. These tighter markets are a benefit to all market participants.

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

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

No. Any firm that decides to invest in collocation services has the ability to do so. If co-location services were only offered by private sector solutions, there is a potential for discriminatory behavior that would be out of the regulatory arm of the exchange or national regulators. Therefore co-location does merit a close look, to ensure that providers are not discriminatory in how they price or allocate co-location capacity.

Regarding SECs regulation on Nasdaq's Co-Location[19]; Noll (Nasdaq executive vice president in charge of transaction services) contends a regulated co-location business is better than no co-location business. If the SEC decided to ban exchange operation of co-location facilities, then unregulated "wildcat operators" would step in to offer it. "They would be unregulated and would not ensure fair access," he said[20].

If the practice of co-location were banned, traders would merely seek to locate their servers in the closest piece of real estate to the exchange data centers, with far less oversight than is possible within the exchange data centers[21].

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

Please see question 3.1.

[19] http://www.tradersmagazine.com/issues/20_301/nasdaq-colocation-sec-regulate-104712-1.html
[20] http://www.tradersmagazine.com/issues/20_301/nasdaq-colocation-sec-regulate-104712-1.html?pg=1
[21] http://www.sec.gov/comments/s7-02-10/s70210-54.pdf page 38

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

HFTs have also invested in co-location and systems so that their low latency allows them to profit from instantaneous and small pricing discrepancies. This gives them a speed advantage, but we wouldn't describe it as unfair.

Unfair means something which structurally biases one class of participants to have an advantage over another. There is nothing unfair about HFT, there is no second tier, and anyone who wants to invest in the resources can compete. Critics argue that average market participants cannot co-locate. Co-location is however a service that all brokers can choose to pay for (Rosenblatt securities, September 30 2009, page 30). This is also said by Narang, founding principal at Telesis Capital. But flash trading, could be seen as unfair Narang adds[22]. Other market participants generally only care about getting there directional trades done, so for them the tighter spreads are good.

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

No, it doesn't create a risk. Co-location does not provide an unfair advantage since co-locations are available for everybody. In fact barriers to entry are very low with firms selling low latency trading systems and connectivity (e.g. see articles and adverts)[23]. Co-location rather provides a competitive advantage. The latter is completely in line with MiFID.

3.6 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.

See also question 2. Co-location does merit a close look, to ensure that providers are not discriminatory in how they price or allocate co-location capacity.

Regarding participants involved in co-location; Optiver agrees with what former SEC Chairman Arthur Levitt has written: "We should not set a speed limit to slow everyone down to the pace set by those unwilling or unable to compete." High-frequency trading networks let large and small investors enjoy a more efficient and less costly trading environment[24].

He also said: More liquidity, better pricing and faster speeds are the building blocks of healthy and transparent markets, and we must always affirm those goals.

[22] http://advancedtrading.com/algorithms/showArticle.jhtml?articleID=220300594
[23] http://www.automatedtrader.net/home.xhtm
[24] http://online.wsj.com/article/SB10001424052970204409904574350522402379930.html

4 Fee structure

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

Traditionally, the European exchanges kept opaque fee structures in place which charged relatively high flat fees per trade. In recent years, exchanges in Europe have been losing market share due to the introduction of MIFID and hence the creation of MTFs. One distinctive instrument that the MFTs use to capture market share was to introduce a simplification of the fee structure and overall lower fees based on the value of the trade, as well as the maker/taker scheme. The response by the incumbent exchanges was to change their fee structures in order to retain liquidity. Most prominent European exchanges have lowered their fees, simplified their fee structures and/or adapted maker/taker schemes themselves, albeit with some modifications. Furthermore, some have been experimenting with different market maker-programs.

Dark pools generally charge higher fees of equal value to both parties of the trade.

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

Lower fees incentivise arbitrage between different trading platforms, intra-continentally as well as inter-continentally. Therefore, lower fees promote a more efficient market.

Additionally, a maker/taker scheme incentivizes liquidity provision, competition among liquidity providers and as a result spreads are narrowing. Therefore, it helps improving liquidity for the trading platforms and increasing the overall market quality.

Overall, transparent fee structures create a level playing field for all market participants. We do not see a benefit of opaque fee structures for the overall market.

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

We are not aware of any downside of the maker/taker fee structure. However, an imbalanced maker taker scheme, extremely favouring one type of party, could be counterproductive and this could possibly have a negative effect on the overall market. Please also see answer to question 7.

Downside of fee structure with high fees is decreased market liquidity, higher spreads, and higher intraday volatility.

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

Maker/taker scheme incentivizes liquidity provision in three ways: it reduces spreads through intensified competition, makes markets more efficient through arbitrage and reduces intraday volatility.

Opaque fee structures bring along uncertainty and results in wider spreads and more inefficient markets.

Some warrant trading platforms employ trading fees and market access on a discriminatory basis between market participants. The high costs of trading on these platforms prevent other participants (market makers) than the issuer of these warrants from providing a continuous market in the instruments. This eliminates the possibility to improve the issuers quote in either size or price. This total absence of competition eliminates all possibilities to increase price efficiency. By abolishing competition the end-investor suffers heavily from the current model. The set-up of this model is basically the opposite of the most important MiFID standards like investor protection and a level playing field.

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

When looking at connecting to a new trading platform, the fees are an important part of the total decision. Other factors are important as well, but taken to the extreme, high fees make certain types of arbitrage impossibly expensive, which could lead to a negative decision on connecting to the platform. Especially considering the current trend of narrowing spreads, it is increasingly important to assess the overall level of fees, but certainly the transparency of the fee structures as well.

Another important cost feature of a trading platform is also the post-trading fees. Unlike the US, the European post-trade industry is fragmented between several vertically integrated silos. This kind of structure creates competition distortions in terms of high pricing[25]. Due to the high post trading fees, it is increasingly important for us to assess the post-trade fees properly before we enter any trading platforms.

4.6 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.

We believe full transparency benefits the market as a whole, as transparency creates a level playing field for all market participants. Fee structures are already made public to all market participants on lit platforms. Dark pools and other non-light trading platforms still have to gain ground in this area.

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

We believe pricing should be kept in balance by competition. Market forces will determine the optimal pricing structure based on the segmentation of difference types of clients. This is viewed by constant shifting fee structures to determine the optimal point of liquidity provision in the U.S., where the major trading platforms have a maker/taker scheme aimed at liquidity provision. An example of how the balance is kept in check is DirecEdge, a U.S. trading platform that rewards market takers. The existence of both types of platforms stops the balance shifting too aggressively to the benefit of one type of party in executions. In Europe, currently, the tendency is mainly directed towards internalisation, instead of fee structures favouring market takers. It is not unlikely that platforms like DirectEdge in the U.S., which rewards market takers, will also appear in Europe.

[25] http://www.liba.org.uk/publications/2006/Post-trading%2020Feb06Final%20AFEI%20FBF%20LIBA%20Final%20Version.pdf

5 Tick size

5.1 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?

Bid-ask spreads: Spreads became tighter because of smaller tick sizes. Finer minimum ticksizes allows smaller sizes to trade on better prices (see also Rosenblatt page 16 and Hendershott, Jones, and Menkveld (2008)). These tighter spreads benefit retail traders who submit small marketable orders that typically execute without price impact[26][27].

Liquidity: There is more liquidity, volumes picked up. Since the Regulation NMS in the US volumes increase dramatically (Rosenblatt securities, May 19 2008, page 3).

Market depth: Hendershott, Jones, and Menkveld (2008) describe that in the US as a result of the reduction of the minimum tick to a penny in early 2001 as part of decimalisation, the depth at the inside quote shrank[28]. Angel, Harris and Spatt (2010)[29] however describe that market depth has marched steadily upward. Deeper markets imply lower price impacts for investors.

Volatility: Less volatility, prices can fluctuate gently without having to flap between large discrete steps.

Displayed order size: The decrease in displayed order sizes occurs because traders will not quote for significant size when they are exposed to trading losses that they incur when trading with informed traders or with large uninformed traders whose orders move prices significantly.

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

The ability to provide liquidity at lower cost is the main driver of reduced tick sizes. This is mainly caused by technological progress and HFT.

Tick sizes which are not reduced have the following negative consequences:

- Prevents transactions between willing buyers and willing sellers inside the tick.
- MMs can't show their best prices which prevents competition between MMs who therefore can't compete on quality.

Tick sizes should be reduced until they are low enough to promote optimal price discovery, but should not be lower. At the moment a new consensus on the optimal tick size in equities has already been formed across different trading venues (MTFs and exchanges). Therefore Optiver thinks prescribing a "one size fits all" limit is unnecessary and undesirable.

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

There has already been a tick size harmonisation work which concluded last year[30]. It reduced the complexities by realizing standardised charts across the markets. However, during the discussions there was no clear consensus on the most appropriate/beneficial outcome and each market had to deal with the specifics

[26] February 23 2010; SEC comment, http://www.sec.gov/comments/s7-02-10/s70210-54.pdf page 8, 9

[27] Source: Chordia, Tarun, Richard Roll and Avanidhar Subrahmanyam, 2008, Liquidity and Market Efficiency, Journal of Financial Economics 87:2, 256, as published.

[28] http://www.afajof.org/afa/forthcoming/6130p.pdf page 14

[29] http://www.sec.gov/comments/s7-02-10/s70210-54.pdf

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

within its own products. Therefore, Optiver agrees with the FESE[31] that a one size fits all approach to a minimum limit may not be appropriate. Optiver believes however, a minimum level may be desirable.

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

This should be left to market forces. We believe an equilibrium will be reached.

A decrease in the minimum price variation to a mil would further lower bid-ask spreads for stocks where spreads are commonly one penny, and it would further lower displayed sizes in those stocks.

Despite these benefits, Angel, Harris and Spatt (2010) do not recommend that the minimum price variation be decreased further. They are particularly concerned about the effect of a small minimum price variation on order display and on transaction costs of large traders, most of whom represent pensions, endowments, and mutual funds[32].

Optiver agrees with the FESE that excessively granular tick sizes in securities can have a detrimental effect to market depth (i.e. to liquidity). An excessive granularity of tick sizes could lead to significantly increased costs for the many users of each exchange throughout the value chain; and have spillover costs for the derivatives exchanges' clients. Therefore Optiver encourages the initiative FESE launched in May to reduce the number of tick size regimes across EU equity markets.

5.5 Have organised markets developed an appropriate approach to tick sizes?

Yes

5.6 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?

5.7 What principles should determine optimal tick sizes?

Please see question 5.4.

[31] http://www.fese.be/_mdb/posdocs/FESE%20Input%20to%20the%20Commission_High%20Frequency%20Trading.pdf

[32] February 23 2010; SEC comment, http://www.sec.gov/comments/s7-02-10/s70210-54.pdf page 50

6 Indications of Interest (IOIs)

6.1 Please provide further information on how IOIs are currently used in European markets by investment firms, MTFs and RMs?

We are not aware of any IOIs so either they don't exist or this facility hasn't been communicated.

6.2 Which are the key benefits/downsides of such IOIs? Please provide evidence to support your views.

If IOI exist everyone active on the platform should be able to see this; an uneven distribution of information should be avoided. If all market participants can see the IOI they will challenge each other for the best price. The risk here is that the IOI sender will give away information without being able to trade. However, sending an IOI to a limited amount of market participants is simply not a level playing field.

6.3 Do you consider that MiFID should be amended to clarify that actionable IOIs should be subject to pre-trade transparency requirements?

We are always in favour of transparency and a level playing field. Markets will be more efficient if every participant has the same information. We think MiFID plays an important role in these aspects. Therefore it would be good to make IOIs subject to pre-trade transparency requirements.

6.4 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.

We don't see any circumstances where it would be appropriate for IOIs to be provided to a selected group of market participants simply because these type of IOIs will not be transparent. The rest of the market will be stuck with incomplete information which will lead to a less efficient market. IOIs like this damage the image of a fair market, because of this lack of transparency.

Market participants will be more careful because of the potential dark orders in the market. Price discovery is being slowed down. It does affect market liquidity in the transparent markets simply because market information is already known to some market participants while others do not receive this information which makes these parties more vulnerable.

If IOIs are only shown to a selected group of market participants it could be compared with flash trading. We are against flash trading (see also Q1.6).

SOURCES:

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