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Mr. Werner Bijkerk
International Organization of Securities Commissions (IOSCO)
Calle Oquendo 12
28006 Madrid
Spain

Regulatory Issues raised by the Impact of Technological Changes on Market Integrity and Efficiency

Dear Werner,

The Association for Financial Markets in Europe[1] ("AFME") and the International Swaps and Derivatives Association ("ISDA") welcome this opportunity to comment on the IOSCO Consultation Report on 'Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency'.

Whilst the Consultation Report focuses predominately on cash equity markets, it also has regard in a number of areas to derivatives markets. As the representatives of some of the largest users of financial markets, AFME and ISDA are well placed to provide input to this consultation.

AFME represents a broad range of European and global participants in the wholesale financial markets. Its members comprise pan-EU and global banks, as well as key regional banks and other financial institutions.

ISDA is the global trade association for the OTC derivatives markets. It conducts its work in three key areas: reducing counterparty credit risk, increasing transparency, and improving the industry's operational infrastructure.

We would like to state at the outset that we support IOSCO's objective in this Report (as mandated by the November 2010 G20 Summit) to "assess the impact of technological developments on market integrity and efficiency…and to seek to ensure that financial markets continue to fulfil their role of financing the real economy."

[1] The Association for Financial Markets in Europe ("AFME") promotes fair, orderly, and efficient European wholesale capital markets and provides leadership in advancing the interests of all market participants. AFME represents a broad array of European and global participants in the wholesale financial markets, and its 197 members comprise all pan-EU and global banks as well as key regional banks, brokers, law firms, investors and other financial market participants. AFME provides members with an effective and influential voice through which to communicate the industry standpoint on issues affecting the international, European, and UK capital markets. AFME is the European regional member of the Global Financial Markets Association (GFMA). For more information, visit the AFME website, www.AFME.eu.

There is no doubt that further research is needed to assess the impact of high frequency trading ("HFT") strategies on markets, especially in terms of its functioning, and the impact it has on market liquidity, the price formation process, stability and volatility; including during times of increased market stress. We would urge IOSCO to utilize reliable, valid and un-conflicted evidence when designing principles for the regulation of HFT.

We hope that IOSCO finds our response to this Consultation Report helpful to its work. Given that the impact of technology on markets is a topic which is going to receive increased attention from regulatory bodies going forward, AFME and ISDA stand ready to assist the regulatory community with any further clarification or further information that it may find useful.

Yours sincerely,

Christian Krohn
Managing Director
AFME

Adam Jacobs
Assistant Director
ISDA

Q1. What impact have the technological developments in the markets in recent years had on your own trading? Has it encouraged, discouraged or had no impact on your willingness to participate on the lit markets, and how does this differ between asset classes and/or instruments?

As described in our comments on the Committee's report on issues raised by dark liquidity[2], we believe that technological developments have generally had a positive impact on financial markets. Technology has led to dramatic improvements in information processing and communications and facilitated the development of new trading strategies, such as High Frequency Trading ("HFT").

Through a combination of these technological advancements, and regulatory changes, HFT has flourished. The removal of the concentration rule in Europe as part of the Markets in Financial Instrument Directive (MiFID) has helped foster a higher level of competition between trading venues than was present previously. This increased competition has attracted liquidity providers (including HFT firms).

The Consultation Report notes that empirical evidence of the impact of HFT on markets is still scarce due to a number of limitations. AFME and ISDA would agree that further research is required to examine the levels and quality of liquidity which exists on the lit markets. Whilst it is the case that trading volumes have increased and spreads have declined (in normal market conditions at least, and at the top of the order book), questions do remain as to a wider array of other impacts.

A lowering of the bid ask spread (a component of the more significant total implicit trading costs) and increased stock turnover are conditions normally associated with increased liquidity. We would broadly agree with the definition of liquidity cited by IOSCO that liquidity is the ability to: "trade in large size quickly, at a low cost, when you want".

However, there are other aspects of liquidity that need to be considered. We consider that further research is therefore required to examine the total impact of high frequency trading. For example, for those HFT strategies that do provide liquidity, the size of the offered liquidity can be small. Together with decimalisation and other technological changes, this has led to a reduction of larger sized orders on the lit markets. With that in mind, a differentiated approach should be taken, that takes into account the effects of high frequency trading on a market-by-market basis.

Q2. What are your views on the suggestion that proprietary trading firms (including HFT firms) that are not currently subject to registration / authorisation by a regulator should be required to obtain such a registration / authorisation? Are there specific regulatory requirements you believe such firms should face?

To what extent do your answers differ if the proprietary trading firm accesses the market as the customer of an intermediary firm through DEA (i.e. under that intermediary's trading rules/codes) rather than as a direct member of the market itself?

[2] *See* Letter from Christian Krohn, Managing Director, Association for Financial Markets in Europe & Ann Vlcek, Managing Director, SIFMA, to Werner Bijkerk, Senior Policy Advisor, IOSCO (Feb. 1, 2011).

We are of the view that a proprietary trading firm (i.e. a firm dealing as principal and not as agent) which is a direct member of a trading venue should be subject to the registration or authorisation requirements of the relevant regulator. The minimum suite of regulatory requirements for such a firm should include, but not be limited to: fitness and propriety, internal systems and controls, financial adequacy and record keeping.

A firm which accesses a market via an intermediary's systems should be subject to some degree of oversight by regulators. Our member views varied as to whether this should include registration / authorisation. In either case, regulators should recognise that where an intermediary offers DEA, it retains regulatory responsibility for the firm's access and will accordingly carry out 'Know Your Customer' checks which essentially cover risk, credit, and corporate structure and background checks.

We do not think however that HFT firms should be subject to separate and distinct regulatory requirements. All proprietary trading firms (as envisaged by the question) should be treated equally.

Q3. What recommendations, if any, would you propose to strengthen the regulatory requirements around pre- and post-trade risk controls? In particular, what measures, if any, do you think regulators should introduce that relate specifically to the use of and risks posed by algorithmic trading and/or HFT?

As a general matter, we support pre and post trade risk controls on market access. We are of the view that the current pre trade risk controls provided by intermediaries are adequate to manage the risks associated with algorithmic trading. HFT presents an additional set of challenges which means that firms and trading venues must ensure that their risk controls are sufficiently capable of dealing with the risks presented. Reviewing existing regulatory requirements and the minimum standards for pre-trade risk controls applicable to intermediaries acting on behalf of HFT firms, as well as pre-trade risk controls for trading venues could therefore be useful (as envisaged by ESMA).

We are also in favour of a ban on naked sponsored access in Europe; as is the case already in the United States under Rule 15c3-5. We believe that firms should be subject to the appropriate pre-trade, intra-trade and post trade controls provided by intermediaries. This will serve to mitigate the risks associated with firms accessing venues without the appropriate controls in place.

In the post-trade space, we think that post-trade risk controls could be improved by the implementation of a European consolidated tape, which would allow regulators to perform their supervisory functions more effectively.

Q4. To what extent do you believe the use of trading control mechanisms such as circuit breakers and limit-up/limit-down systems by trading venues should be mandated?

If you believe they should be mandated, should venue operators be permitted to design their own controls or should they be harmonized / coordinated across venues (including between interrelated instruments such as a derivative and its underlying)?

We are of the view that there would be value in coordinating circuit breakers and limit-up / limit-down systems between different trading venues, as this may serve to reduce volatility across markets. We note that in the SEC's preliminary report on the 6 May 'flash crash', the SEC concluded that the imposition of disparate volatility rules may have had the effect of exacerbating, rather than dampening, price volatility since orders may be routed to other, less liquid venues for immediate execution rather than waiting out the pause in trading.

The rules of the various trading venues regarding circuit breakers and limit-up/limit-down systems should be the same (or as close as possible) in order to avoid any arbitrage between these venues. Trading controls should be appropriately calibrated, monitored and reviewed in close consultation and co-operation with trading venues and their participants. In Europe, these rules would need to be carefully calibrated across exchanges and MTFs, within a flexible framework that allows calibration according to the specific market models of each venue. This will ensure that unexpected or negative consequences on markets in certain circumstances are avoided, such as unnecessary halts in trading and subsequent reductions in liquidity.

We think that identifying those related derivative instruments which should be included within trading control mechanisms is a complex and difficult task and would require further analysis by regional regulators to take account of the specificities of their local markets. For example, it would be difficult to determine at what threshold an index derivative should be deemed 'related' to a particular stock and therefore included within a circuit breaker.

We are of the view that the inclusion of related derivatives would probably not be relevant in Europe at this stage. We are not convinced as to whether there is sufficient liquidity in derivative products to warrant their inclusion within circuit breakers. However, as markets evolve, this situation may change.

Following the events of 6 May in the United States, the SEC approved stock by stock circuit breakers that pause trading in S&P 500 stocks across all US equity markets for a five minute period, in the event a stock experiences a ten per cent change over the preceding five minutes. We have been supportive of the implementation of these market wide measures.

Q5. To what extent do you believe market maker schemes offered by trading venues should be subject to mandatory minimum criteria? Should the criteria be determined by the trading venue alone? To what extent do you agree with the suggestion that the use of stub quotes should be prohibited?

There is a significant amount of competition between venues in Europe for attracting electronic market makers; MTFs in particular are very reliant on market makers such as HFT for sustaining their business model. Fee structures are under almost constant review

and we believe that this competition mitigates the risk of discrimination between venue participants. The implementation of regulation in this area may distort the current competition model; however it may also lead to a harmonisation of standards that could ensure that the integrity of the term "market maker" is upheld - thus potentially providing confidence to the investing community. The competition benefit and arbitrage opportunities of differing multi venue market making criteria should be balanced with the importance of quote and market integrity.

If minimum criteria are mandated, and traders are obliged to provide two way quotes, they would be taking on added risk, with a possible result being a reduction in liquidity. However, liquidity may also increase due to a plausible improvement in liquidity confidence. Liquidity transience should be researched, and these outcomes reviewed before any policy decisions are taken. Traders would need to be incentivized to offset the additional cost of risk.

We agree with the suggestion that stub quotes should be prohibited.

Q6. Do you have suggestions for improvements to regulators' surveillance capabilities with respect to the markets and modern trading techniques? Please elaborate. Who should bear the cost of investing in such capabilities and the cost of operating and supervising the markets in order to ensure fairness among market participants? Please elaborate.

AFME and ISDA acknowledge that changes in technology and market practice have made it necessary for regulators to review their surveillance capabilities. Given the potential substantial costs of those capabilities, we urge regulators to ensure that any further spend on surveillance technology is proportionate to its benefits. Referring to the global and increasingly multi-product nature of HFT, we also encourage cooperation among regulators to leverage additional capabilities on an international basis.

The cost of investing in additional surveillance technology will have to be incurred by the regulators and should be shared amongst all market participants. There should not be specific firms or practices which incur additional charges.

We are also of the view that, as mentioned above, the implementation of a consolidated tape in Europe would help regulators perform their market supervision work more effectively. This would include, as an enabling measure, standardisation of the content, format and meaning of trade data.

In some cases, investment in new technology may bring cost savings for regulators as the amount of manual validation that they would have to engage in would be reduced.

Q7. What do you perceive as the major causes of settlement indiscipline and settlement failures? What steps, if any, do you believe regulators should take to address these causes?

We are not aware of any particular problem with settlement indiscipline or settlement failure in Europe. To the extent that settlement failures do exist, there are a multitude of different reasons for this, and HFT is unlikely to be one of them.

In the European cash equities context, HFT strategies would very often seek to end the day with a net flat position and would therefore not have any settlement obligations. In the derivatives context, we do not see settlement discipline as an issue.

Q8. Have the appropriate steps been taken to limit or manage conflicts of interest that arise where an investment firm simultaneously conducts client-serving activities and proprietary trading or a trading participant is also a shareholder in a venue on which it trades? If you believe conflicts management is inadequate, please explain how this manifests itself and any recommendation you have for how conflicts management could be improved.

In Europe, there are already measures in place to deal with conflicts of interests. MiFID requires European investment firms to manage properly their potential conflicts of interest and disclose them to their clients. Furthermore, regulators have regularly assessed the way European investment firms have implemented such provisions, notably using onsite inspections.

In addition, following the introduction of MiFID, the Inducement rule and Best Execution policies have been designed and implemented to protect clients' interests and mitigate any conflicts.

When client-serving activities and proprietary trading are simultaneously conducted or when a trading participant is also a shareholder in a venue on which it trades, the relevant investment firms should comply with specific rules and regulation to prevent and avoid conflicts of interests. In this context, they should currently comply with the following rules:

- to create and maintain an effective conflicts of interest policy identifying the circumstances which constitute or may give rise to a conflict of interest.
- such policy should specify procedures to be followed and measures to be adopted in order to manage such conflicts,
- to identify the business departments conducting client-serving activities and proprietary trading,
- to send relevant disclosure to clients,
- to implement separation (including a physical one) of these departments in order to avoid any undue disclosure of information.

However, it is important that the regulation around conflicts management is regularly reviewed to ensure that the measures in place are appropriate.

Q9. Do you think existing laws and rules on market abuse and disorderly trading cover computer generated orders and are relevant in today's market environment?

We believe that in order for regulators to detect market abuse, they would have to gain a holistic understanding of the computer generated strategies being employed in each case. Regulators would then be able to make a more informed assessment than if they only considered individual orders and trades.

There is no doubt however that market abuse regimes should be able to capture potentially abusive or manipulative strategies such as layering or spoofing; and that regulators should have the surveillance systems in place to detect this kind of activity.

If the regulator has concerns over possible breaches of the market abuse regime in Europe as it currently stands, research into this area should be initiated. Although time consuming and costly, it may help to put to rest wider concerns if conducted effectively.

Q10. Are there any strategies employed by HFT firms that raise particular concerns? If so, how would you recommend that regulators address them?

We believe that in the absence of clear market abuse or manipulation (under current definitions and in reference to question 9), attempting to categorise particular HFT or other electronic strategies which raise concern is fraught with difficulty. The concept of "concern" is difficult to define and very wide ranging. Whilst a strategy may benefit one firm it may be concerning for others. Concern may also be raised in a macro sense in relation to overall stability.

Without further clarity, it is difficult to provide firm views on this. AFME would welcome further discussion with IOSCO on this topic.

It is also the case that existing trading strategies, whether HFT or otherwise, will evolve in ways that may outpace regulatory efforts to categorise them, and entirely new trading strategies will develop at a rapid pace. With that in mind, suitable scenario planning should be catered for and regulators should ensure that a suitable framework is in place to mitigate risks such as an appropriate market abuse regime and robust systems and controls for investment firms and trading platforms.

We would however like to highlight to IOSCO the practice of (sub-penny) arbitrage, whereby HFTs buy and sell stocks purely with the interest of optimising rebates received from trading venues. Given rebates are supposed to be paid to selected market participants for providing (as opposed to taking) liquidity, we consider further research is required to examine the impact of this practice against the broader definition of liquidity. It could be perceived that the liquidity offered by this strategy is not meaningful as it only seeks to 'get ahead' of existing liquidity.

Q11. Should charges or fees be imposed on messages, cancellations or high order-to trade ratios? If so, how should the fees or charges be determined and on what basis?

It may not be appropriate for regulators to intervene in the commercial pricing policies of trading venues with respect to messages, cancellations or high order to trade ratios unless there is cause to do so.

Should empirical analysis of the EU markets find particular issues with the volume of order cancellations or high order-to-trade ratios, we would suggest a process of gradual increases in costs for cancellations be implemented by trading venues as a disincentive. Given that the industry and market place must bear the cost of constantly increasing message rates, some deterrent against high order cancellation rates may be appropriate.

However, it is likely that given the nature of HFT strategies, charges or fees in this area would have the effect of restricting liquidity provision.

Some venues (e.g. NASDAQ OMX) already self impose order to execution volume limits through higher trading tariffs. Venues should be able to set limits based on the platforms performance and capabilities.

Q12. Should market operators be required to make their co-location services available on a fair and non-discriminatory basis?

Yes, we fully support fair and non-discriminatory access to co-location facilities.

Q13. Should market operators be required to provide testing environments to enable participants in stress test their algorithms? If so, what kind of minimum requirements are reasonable?

We believe that testing environments could be helpful to enable HFT to stress test their algorithms. To be approved in this test environment, certain criteria would need to be applied.

Due to the nature of HFT, test environments would need to replicate the performance of live systems. This would be a costly investment, and the benefits would need to outweigh the cost of new test environments.

Further research should be conducted into this area, particularly into the impacts of such testing on competition and on the possible improvements in market microstructure confidence.

Q14. To what extent do you have other comments related to the risks to market integrity and efficiency raised by the issues in this report?

We have the following additional comments to make:

<u>Naked Access</u>

We would like to reiterate our support for a ban on naked sponsored access in Europe; as is the case already in the United States under Rule 15c3-5. We believe that firms should be subject to the appropriate pre-trade, intra-trade and post trade controls provided by intermediaries. This will serve to mitigate the risks associated with firms accessing venues without the appropriate controls in place.

Post Trade Infrastructures

In a highly automated trading environment, when volatility and volumes may be high, any additional liquidity may be difficult to manage by the relevant post-trade infrastructures. Clearing houses and central securities depositories should be robust and be submitted to appropriate requirements in order to be able to provide their services properly and avoid any failure or buy-in.

It has to be underlined that the European Markets Infrastructure Regulation (EMIR) envisages creating such a framework for post-trade infrastructures providing their services in the cash equity environment.

OTC Derivatives

In respect of the use of technology for the trading of derivatives, we note the G20 commitment that "all standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate".

As a general point, the report illustrates the challenge of putting in place regulation that is sensitive to the behaviour of users of financial exchanges. As such, it would be misleading to assume that moving OTC derivatives transactions onto exchanges will necessarily make for more straightforward supervision, or for greater efficiency – indeed, ISDA transparency tests demonstrate how competitive pricing is in OTC derivatives markets.[1]

More importantly, we believe that mandating or incentivizing use of particular trading platforms for derivatives where such products are not suited to their use will be to the detriment of investors, as mandating the use of electronic venues could adversely affect liquidity and thereby increase volatility.

In short, an important part of promoting market integrity and efficiency, particularly in the context of derivatives markets, is ensuring the ability of investors to choose the form of execution that best suits their needs, whether that be on exchange or OTC.

[1] http://www2.isda.org/improving-transparency/