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IOSCO Consultation Report on Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency

We welcome the opportunity to respond to the IOSCO Consultation Report on Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency. This is an important issue for a major global buy-side participant such as BlackRock, who is focused above all on achieving investment performance for our clients as part of our fiduciary responsibility.

General Remarks

BlackRock would, *a priori*, embrace advances in trading technology, speed, and behaviours to the extent that they facilitate improved and consistent outcomes for our clients. A well regulated market environment facilitates responsible growth of capital markets and preserves consumer choice, whilst appropriately protecting end-investors. We feel that a major task of the regulatory community in the arena in which this Consultation Report focuses is to acknowledge the benefits for investors from advances in technology and then set the regulatory concerns in that context.

Specific Remarks

Q1 What impacts 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?

We generally see recent technological developments in the market in a positive light. Such developments have, on the whole, encouraged our willingness to participate on the "lit markets".

To enhance the performance we can return our clients, we have leveraged technology to increase our direct market access or to employ algorithms to determine aspects of the order such as the timing, price, or quantity.

Matching or crossing orders in so called "dark pools" has been a component of our trading throughout. "Dark pool" trading enables participants to seek liquidity, while reducing the risk of distorting stock prices. It is unfortunate that this term has taken on such a pejorative meaning in the industry lexicon. We believe the dark pool market structure has, in fact, brought discernable benefit for investors, such as providing an alternative liquidity choice and improving pricing for our clients.

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?

BlackRock would support the introduction of a broad definition for automated trading with the regulatory requirements capturing all players, thereby ensuring a more robust regulatory environment. High frequency trading (HFT) could be a sub-category of the wider categorisation of automated trading.

Whilst BlackRock strongly supports requirements for automated trading firms to have robust control systems, and to notify their algorithms to supervisors as well as trading venues having in place circuit breakers and other risk controls, we would have doubts about the value of HFTs being treated as market makers by market operators to ensure they provide liquidity on a continuous basis. Likewise, the introduction of a minimum resting period of orders before they can be cancelled from the order book introduces, we believe, inefficiency into the market for little discernable benefit for markets or investors alike.

Where sponsored access exists, the regulatory responsibility should fall on the intermediary in question, which again ought to be captured by the broad and flat consistent set of requirements that should to be applicable across all trading entities.

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?

From a pre-trade perspective, we would support strong risk control requirements (e.g. controls to prevent 'fat-finger' orders) which will ensure that algorithms are used appropriately, based on the size, motivation, and potential impact of an order. 'Speed-bumps' which disrupt automated momentum following within an automated trading agent past pre-defined thresholds would also be a sensible preventative measure.

From a post-trade perspective, the creation of consolidated audit trails, the data relating to orders received and executed, is beneficial. However, any monitoring mechanism must be secure with respect to confidentiality of the client's flow, as well as being able to track trade executions and messaging traffic to capture the information in order cancellations and amendments.

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 harmonised/coordinated across venues (including between interrelated instruments such as a derivative and its underlying)?

BlackRock would support the introduction of uniform mechanisms to curb extreme price volatility for stocks and Exchange-Traded Funds (ETFs) across all exchanges, such as circuit breakers and price bands (limit-up/limit-down systems). We would strongly support a high degree of global harmonisation for such controls through the issuance of global guidelines in this area.

BlackRock issued a *ViewPoint* (white paper) on the impact of the 6 May 2010 "flash crash" and a second paper in May of 2011, "*Revisiting the Flash Crash: A year Has Passed, What Has Changed?"* The paper sets out the case for the implementation of better rules to help protect investors and reflects on the evolution that has occurred in the markets in recent years.

The *ViewPoint* series can be accessed at the link:
http://www2.blackrock.com/global/home/PublicPolicy/ViewPoints/index.htm

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?

We do not believe that market making obligations should be eligible to be met by stub quotes. Instead market makers should be held to providing quotes within an acceptable tolerance band from the National Best Bid Offer (in the US) or its equivalent in other markets. The interests of

end-investors are otherwise best served from the positive effects of competition amongst venues.

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.

If the costs for developing appropriate market monitoring capabilities are higher due to the volume of activities of a handful of participants, it would be appropriate to have the participants, which, for example, generate more messages than a reasonable threshold level, shoulder a larger proportion of the cost of maintaining this infrastructure.

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?

Settlement failures have been highlighted recently, specifically the claim that ETFs are more likely to fail then single-name listed equities.[1] The current system in the US does not differentiate between a fail by a market maker and a fail by other market participants. A market maker failing to deliver on T+4 and T+5 through their normal trading activity is treated the same as any other fail.

BlackRock supports additional transparency around the failure rate of ETFs. We would recommend full transparency regarding the duration of a fail, the size of the fail, and a flag indicating whether the fail is the result of market making activity. It would then be simple to generate the percentage of fails caused by market making activities.

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.

Yes, to the extent that firms have robust and appropriate execution policies in place, conflicts of interest are typically addressed through such policies.

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?

It would be prudent to review laws and rules on market abuse and disorderly trading in view of recent market developments and a more automated trading environment. However, regulators would be urged to approach such an exercise from a neutral starting position and base any and all future policy actions on a sound cost-benefit analysis of a range of policy options. This should follow a rigorous consultative process with market participants and other interested stakeholders.

[1] In the United States, rule 204 of Reg SHO which applies to all securities including ETFs governs rules around short sales. A market participant is in violation if they have not covered their naked short via a purchase or secured a borrow before the start of trading on T+4 (the day after settlement). Also within Rule 204 is an exemption giving market makers an additional 3 days to cover their naked short. The motivation for this extension is that market makers are providing liquidity to the marketplace and this then gives them additional time to cover their position through normal two-way trading.

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

Future regulatory action should be based on a thorough evaluation of the impact of HFT strategies in the round. On the buy-side it is difficult to state, in the absence of the necessary data that high- frequency traders hold, the full extent of the strategies that HFT pursue. However, based on IOSCO's Consultation Report, it appears that most are a logical evolution of standard arbitrage or market making activities that have arisen in the light of technological innovation and continued fragmentation of, or competition between, markets.

Strategies that are designed to profit from abusive and manipulative disruption of the integrity of the market are of paramount concern (i.e. the so-called 'quote stuffing' and 'momentum ignition' strategies). Regulators are therefore responsible for determining if HFT firms practice manipulative behaviour by escalating their ability to monitor markets at the level of today's trading velocity and sanction those firms appropriately.

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 would not be appropriate for regulators to intervene in the commercial pricing policies of trading venues. Imposing fees on high order-to-trade would be detrimental to overall liquidity and bid/offer spreads. This would effectively act as a tax on HFT participants and remove them from that market centre. Therefore, we believe that the charges or fees imposed by venues on participants should be commercially set at the full discretion of that venue.

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

BlackRock would not consider it 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 empirical analysis proving the cause to do so.

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

Any requirement to provide testing environments to enable participants to stress test their algorithms could intuitively appear beneficial for markets. We would caution however that if the requirements were overly onerous in this area they could stifle innovation and/or responsiveness of the development of algorithms by brokers.

It is worth noting that stress testing algorithms could give a false sense of security as market events such as Flash Crash and periods of extreme volatility would be difficult to produce in a test environment. These are usually the result of a combination of events such as news or specific participant behaviour.

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 do not have additional points to raise in relation to the report.

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About BlackRock

BlackRock is one of the world's preeminent asset management firms and a premier provider of global investment management, risk management and advisory services to institutional and retail clients around the world. As of 30 June 2011, BlackRock's assets under management totalled €2.56 trillion across equity, fixed income, cash management, alternative investment and multi-asset and advisory strategies including the industry-leading iShares® exchange traded funds. Through BlackRock Solutions®, the firm offers risk management, strategic advisory and enterprise investment system services to a broad base of clients with portfolios totalling more than €7.00 trillion.

Our client base includes corporate, public, multi-employer pension plans, insurance companies, third-party and mutual funds, endowments, foundations, charities, corporations, official institutions, banks and individuals. BlackRock represents the interests of its clients by acting in every case as a fiduciary. It is from this perspective that we engage on all matters of public policy. BlackRock supports regulatory reform globally where it increases transparency, protects investors, facilitates responsible growth of capital markets and, based on thorough cost-benefit analyses, preserves consumer choice.