ADDENDUM TO IOSCO REPORT ON INVESTIGATING AND PROSECUTING MARKET MANIPULATION

I. INTRODUCTION

In May 2000, the Technical Committee of the International Organization of Securities Commissions (IOSCO) published a Report on *Investigating and Prosecuting Market Manipulation*.[1] The Report clearly presented the basic concepts underlying market manipulation, how and why market manipulation can occur and the tools used by different jurisdictions in detecting, investigating and prosecuting market manipulation.

Twelve years later, the basic concepts underlying market manipulation remain the same. However, developments in technology have enabled new market structures to evolve and impact the way in which market manipulation occurs and new methods of market manipulation have emerged. For example, investors can now easily access information and trade in the market online through the Internet and institutions can take advantage of fully automated electronic trading. These technological changes have necessarily led to some changes in the methods used in detecting and investigating market manipulation.

There has been much work done by IOSCO in regards to the impact of technological changes[2], the evolution of exchanges[3] and whether there are emerging types of market manipulation[4]. The purpose of this addendum is not to repeat that work but to provide useful references both to IOSCO's work and experiences of members of IOSCO, to reflect present day financial market conditions.

II. TYPES OF MANIPULATIVE CONDUCT

Technological changes have led to changes in the way trading on capital markets is conducted. IOSCO has previously identified the following as the most important changes which can impact market integrity[5]: (IOSCO Report FR 09/11)

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1 *Investigating and Prosecuting Market Manipulation*, Report of the Technical Committee of IOSCO, May 2000, http://www.iosco.org/library/pubdocs/pdf/IOSCOPD103.pdf

2 CR03/13 *Regulatory Issues Raised by Changes in Market Structure*, Consultation Report of the IOSCO Board, March 2013, available at;

http://www.iosco.org/library/pubdocs/pdf/IOSCOPD407.pdf

CR12/12 *Technological Challenges to Effective Market Surveillance Issues and Regulatory Tools*, Report of the Board of IOSCO - Consultation Report of The Board of IOSCO 22 August 2012, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD389.pdf;

3 See *Regulatory Issues Arising from Exchange Evolution*, Final Report of the Technical Committee of IOSCO, November 2006, available at;

http://www.iosco.org/library/pubdocs/pdf/IOSCOPD225.pdf

4 FR09/11 *Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency* , Final Report of the Technical Committee of IOSCO, October 2011, available at; http://www.iosco.org/library/pubdocs/pdf/IOSCOPD361.pdf

5 Ibid.

- Growth of High Frequency Trading (HFT) and algorithmic trading
- Market fragmentation and dark liquidity
- Direct electronic access
- Co-location[6]
- Tick-sizes
- Fee structures

These changes have led to increasing examples of particular types of manipulative practices, largely used in HFT, for Regulators to be aware of and guard against, such as:

- "Spoofing" the order book to send false market signals, e.g., *In re Bunge Global Markets, Inc*;[7] *SEC v. Hold Brothers Online*[8].
- "Marking the close" or "banging the close" - trading activity before or during the close of trading on market which impacts settlement prices;

Other emerging practices include:

- False reporting or the manipulation of benchmark prices that may be used to settle other contracts, e.g. LIBOR;
- Manipulation via account intrusion, e.g. *SEC v. Nagaicevs;*[9]
- Transfer agent manipulation, e.g. *SEC v. Lund;*[10]

The impact of the timing of delivery of rating information on markets, particularly in relation to sovereign debt, became obvious during the Global Financial Crisis and is another area which may require surveillance and application of anti-manipulation provisions.

Over the counter (OTC) markets have also grown and evolved since publication of the Report as the result of technological innovation. The development of these markets has brought increased risks for investors and new challenges for regulation. Unlike recognised exchanges, there is rarely privity between OTC markets and the issuers that are quoted on them.

These markets are also largely unregulated or operate under minimal regulation and may not have listing standards. OTC markets are now quoted online and real time quotes are accessible by market participants and investors creating significant risks to investors due to the potential for fraudsters to obtain access to potential victims in real time. These markets may also provide ideal test markets for the development and refining of manipulative practices due to the low level of supervision.

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6 Co-location services house trading systems used by market participants in a location close to trading venue servers. Co-location offers the advantage of extremely low latency because of the short physical distance to the trading venue's systems. Low latency is a key ingredient in certain trading strategies typically employed by high frequency traders.

7 http://www.cftc.gov/ucm/groups/public/@lrenforcementactions/documents/legalpleading/enfbungeorder032211.pdf

8 http://www.sec.gov/litigation/admin/2012/34-67924.pdf

9 http://www.sec.gov/news/press/2012/2012-17.htm

10 http://www.sec.gov/litigation/litreleases/2009/lr21317.htm

III. TOOLS FOR PREVENTING MARKET MANIPULATION

The tools for preventing market manipulation noted in the Report remain current. One notable new initiative is the oversight of benchmark fixing, e.g., Libor. IOSCO has recently surveyed member organisations to understand how many members actively regulate benchmark fixing.

In the European Union, REMIT (*Regulation on Energy Market Integrity and Transparency*) [11] aims to prohibit market abuse in the wholesale energy markets and is designed to complement and expand the scope of the *Market Abuse Directive* (MAD)[12] to cover energy derivatives and emissions trading. REMIT captures attempted market manipulation such as the LIBOR example in its definition of market abuse.

Another initiative is the introduction of defined activity as market manipulation such as that proposed by the European Commission review of the MAD (October 2011) in *Market Abuse Regulation* (MAR) Article 8. Annex 1 of MAR provides an exhaustive list of market manipulation techniques including the sending of orders to a trading venue by means of algorithmic trading without the intention to trade but for the purpose of:

- disrupting or delaying the functioning of the trading system of the trading venue;
- making it more difficult for other persons to identify genuine orders in the trading system of the trading venue, or
- creating a false or misleading impression about the supply of or demand for a financial instrument.

The EU has recently added a new provision to the draft MAR that makes illegal "transmitting false or misleading information, providing false or misleading inputs, or any action which manipulates the calculation of a benchmark" (Article 8 (1)(d)).

MAR will significantly widen the scope of the current market abuse regime in the European Union to financial instruments traded on a wider range of markets,[13] to behaviour in relation to any benchmarks (not only LIBOR) and will also capture behaviours such as attempted manipulation (which is not caught under the current MAD).

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11 Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011, available at; http://eur- lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:326:0001:0001:EN:PDF

12 Directive of the European Parliament and of the Council of 28 January 2003 on insider dealing and market manipulation (market abuse) (No 2003/6/EC), available at; http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:096:0016:0025:en:PDF

13 Additional markets that will be captured by MAR include Multilateral Trading Facilities and any related financial instruments traded OTC (such as credit default swaps) which can impact the underlying market.

During the Global Financial Crisis, rumours about financial institutions facing difficulties where frequently spread via online chat rooms. Some jurisdictions have responded by adding express reference to dissemination of misleading information or rumours in their market manipulation legislation.

IV. TOOLS FOR DETECTING MARKET MANIPULATION

Market Surveillance

In recent times, there has been a significant rise in the trading activity and volume generally. This, combined with technological changes such as fully automated electronic trading and direct market access, has meant that regulators have had to rethink their approach to market surveillance.

The Emerging Markets Committee looked at some of these issues in 2009 and the impact of technology on market surveillance is the subject of further discussion and consultation following the release of CR12/2012 entitled *Technological challenges to effective Market Surveillance Issues and Regulatory Tools* in August 2012.

In rethinking market surveillance, some of the areas to consider are:

- Recordkeeping obligations that require retention of audio tapes, in addition to audit trail records.
- Acquisition of "message data" or "order data" for unexecuted orders that may have impacted markets.
- The need for flexible, programming-based analytical tools to enable regulatory staff to identify suspicious patterns of activity. This type of analytical software can be developed in-house, or purchased and customised.
- Trader identification and monitoring actual position size across markets.
- The impact of increases in the volume of data that must reviewed in detecting market manipulation.
- Difficulty in tracing orders and transactions and in reconstructing important trading events.
- The need to regularly review and enhance alert criteria and parameters used by surveillance tools and whether special alerts should be developed to detect low latency trading such as layering, quote stuffing, momentum ignition and other pattern recognition alerts.
- Ensuring sufficient investment is made in market surveillance tools to properly monitor and supervise large quantities of transactions.
- Adequately maintaining the surveillance tools which are utilised.
- Providing for the high cost of ownership, maintenance and customisation of these surveillance systems.
- Ensuring that regulators have highly skilled staff to conduct analysis of market conditions.
- Evaluating what can be done to improve market surveillance taking into account different market structures, for example: imposing large trader

reporting requirements, the use of entity identifiers to identify trading on a participant by participant basis or to flag algorithmic/HFT orders.

- Monitoring the internet and fora such as chat rooms and blogs to detect market rumours and false or misleading information that may have an effect on the market. The increased use of technology has increased the speed at which information is widely disseminated, and thus potentially increased the speed at which manipulation can occur. [14]

- Opportunities for increased cross-market surveillance for manipulation.

V. INVESTIGATING MARKET MANIPULATION

A. Proving Market Manipulation

The core factors identified in the Report regarding proof of market manipulation remain current. The task of proving these elements, however, may be more complex in view of some of the developments in markets identified earlier in this addendum. Particular challenges may arise from:

- The impact of new market structures: a company's securities are more likely now to be traded simultaneously on several markets or trading facilities. This provides greater opportunity for manipulative devices to be employed between markets for a single security. It also renders more complex the task of ascertaining whether price movements are the result of legitimate supply and demand forces or arise from manipulation.

- The growth in more complex financial products: there is a greater need for highly skilled staff to assess the pricing and structure of these products and to explain the likely price effect of apparently manipulative conduct.

- Cross-market events where activity occurring in one place impacts other markets, either through arbitrage or reliance on the same benchmark for settlement purposes.

- HFT and algorithmic trading, which provide challenges both in terms of the significant increase in the volume of trades, which adds to the burden of analysis and in terms of ascertaining the purpose of trading activity initiated by a specific algorithm.

B. Maintaining and Collecting Information Necessary to Prove Manipulation

The description as to the types of records required and the use of regulatory powers to collect that information in the Report remains current. However changes in market conditions have led to several challenges in collecting information to prove market manipulation. These include the volume of information required, the form in which that information is stored and the location where such information is stored.

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[14] Note also that as part of the Report on Securities Activity on the Internet III, October 2003, roundtables discussed the practicability of imposing regulatory requirements on operators of bulletin boards.

Examples include:

- The importance of audiotaping requirements and audiotape retention requirements.

- The speed at which technology changes and systems are replaced, especially in the context where market participants and brokers merge or restructure and where back office functions may be outsourced.

- The impact of globalisation and changes in the structure of market participants in that:
    - client records and trading records may be located offshore.
    - compliance functions may be split across jurisdictions.
    - multiple subsidiaries may be involved in different functions relating to setting up the client's account and executing trades.
    - there may be difficulties in being able to identify the ultimate underlying client.

- Access and inception of data. More regulators are seeking to use telephone intercepts and access to stored communications, such as stored emails and text messages. Such access may require legislative change. In the European Union, the MAR and MiFID review introduces a provision which will give competent authorities the power to require telephone and data traffic records held by investment firms in cases concerning potential market abuse.[15]

- Retention times of electronic information such as IP addresses by Internet Service Providers and telecommunications data. There are moves by some jurisdictions to legislatively impose minimum retention periods.

- Ability to obtain real-time trading data.

These and other related issues are canvassed in IOSCO's August 2012 discussion document, *Technological Challenges to Effective Market Surveillance* (CR12/2012).

VI. THE CHALLENGES IN TAKING ENFORCEMENT ACTION AGAINST MANIPULATION

Much if not all of the information contained in this section of the Report, relating to standards of proof, reconstructing trading in the market, voluminous data management and analysis and use of expert testimony, remains current.

Since the Report was published there has been a tendency to broaden the sanctioning powers of authorities responsible for enforcement against market manipulation. There has been a move towards severe sanctions, both in legislation and practice. There has also been a broadening of the range of available sanctions, including criminal penalties (e.g., the forthcoming MAR introducing a harmonised criminal sanctions regime for the European Union) and administrative sanctions.

[15] MAR Article 17 (2) (f) and MiFID Article 71 (2) (d)..

The impact of technological changes on reconstructing trading in the market and the volume of data that may have to be reviewed has already been mentioned in this addendum.

Other challenges to consider include:

- The overall utility of expert evidence.
- Availability of attempted manipulation as a violation.
- Burden of proof and whether reckless disregard should be the standard for determining manipulation.
- Illegal activity may be occurring in unregulated markets.
- Issues in quantifying the harm to market integrity from abusive market practices
- The impact that quantifying harm has on sentencing considerations

VII. COOPERATION

Globalisation has meant that cross-border cooperation between exchanges, regulators and other authorities has become even more critical to obtaining sufficient evidence and prosecuting not only market manipulation, but all forms of market misconduct, i.e. insider trading, false or misleading statements to the market, disclosure of director's interests etc. IOSCO's Technical Committee discusses this in depth in its final report on *Principles Regarding Cross-Border Supervisory Cooperation*, May 2010.

Following the Report, in 2002 the IOSCO *Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information* (MMOU)[16] was entered into by a number of member regulators enabling more formalised enforcement cooperation between the signatory securities regulators. Requests for information by signatory regulators and provision of information is regulated by the terms of the MMOU. IOSCO's February 2012 report on *Recommended Practices for Information Sharing and Cooperation* (OR03/12) provides further information in relation to the process and expectations relating to MMOU requests and other information sharing agreements and provides some solutions that may minimise practical difficulties that can arise.

In some cases bilateral and multilateral enforcement cooperation mechanisms are in place outside of the MMOU, such as the Intermarket Surveillance Group.

Some of the issues and considerations to recognise in relation to cross-border cooperation include:

- Cooperation agreements usually require that the requesting authority be actively investigating a suspected breach of the law, but do not contemplate

[16] *Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information*, IOSCO, May 2000, revised May 2012, available at: http://www.iosco.org/library/index.cfm?section=mou_main

the exchange of information for prudential or oversight purposes[17]. This may limit the day-to-day information outside of an enforcement context that a regulator needs in order to exercise effective oversight without the assistance and cooperation of the relevant counterpart.

- Considerations to take into account when contemplating or undertaking a cross-border investigation are discussed in the Technical Committee of IOSCO's report; Joint Cross-border Investigations and Related Proceedings, February 2009.

Madrid, April 2013

[17] Principles Regarding Cross-Border Supervisory Cooperation Final Report of Technical Committee of IOSCO – 25 May 2010 – page 7. This report provides general analysis of different types of regulated entities that operate in the markets, how their operations have globalized and suggestions as to how regulators can enhance cross-border cooperation to better supervise these entities.