

© Copyright 2011, The NASDAQ OMX Group, Inc. All rights reserved.

NASDAQ OMX° LORNE CHAMBERS
SMARTS

CLOBAL HEAD OF S

LORNE CHAMBERS
GLOBAL HEAD OF SALES, SMARTS INTEGRITY

FRAGMENTATION OF MARKETS

Traditionally, surveillance meant knowing how participants are trading on a single market

In some cases, linkages between cash equity products and their derivatives needed to be considered – e.g. index futures manipulation

In recent years the problem has become much more difficult

- Competition by competing exchanges within a country
- Competition by competing venues with a region, across national borders

Market participants can now spread their trading across multiple venues

The effectiveness of surveillance in its traditional form reduces significantly

SMARTS

REGULATORY FRAMEWORKS TO COMBAT IMPACT OF FRAGMENTATION

Each market place conducts surveillance with consolidated data

- Duplication of effort across venues
- Barriers to sharing the essential, but sensitive data
- Example US SRO model, using anonymous consolidated tape data

Each national regulator takes greater responsibility for surveillance

- Do they have the right level of technology know-how?
- In a period of austerity and cost cutting will they have the necessary budgets?
- Example ASIC (IIROC as a quasi regulator)

Coordination of national regulators

- Will political barriers impact effective cooperation / centralisation?
- Are cross border Information standards sufficiently standardised?
- Example potential future model for Europe

Maintain Status Quo

- Is it effective? is it enough?
- Example current model for most exchanges



MARKET SURVEILLANCE MUTUAL OBLIGATION

- We see market surveillance as the responsibility of Exchanges, Regulators and Participants
- Exchanges know their markets best, but may not have all the data
- Some Regulators have the powers to attain all the data, but may not have the technology
- Brokers have their own data, and are taking a greater interest in managing their risk. In some countries, brokers are leading the way in cross market surveillance and self reporting
- In some markets we see all 3 parties using the same technology opening up greater effectiveness in communications

RECENT AND CURRENT CHALLENGES TO SURVEILLANCE

Market Fragmentation

- National multiple markets in a single jurisdiction trading similar products USA, Canada, UK, Australia
- International multiple countries trading the same instruments across multiple jurisdictions – Europe, MILA

Algorithmic Trading

 Orders and trades carried out programmatically based on predefined sequence of events

High Frequency Trading

 Increasing the speed in which trading can be carried out, and therefore the amount of data to be analysed

Direct Market Access

• Allowing participants without exchange membership to send order flow directly to the exchange

ALGORITHMIC TRADING

Many algorithms simply facilitate trading demands of investors who want to buy and sell securities

It is logical that algorithms could be used to manipulate a market

In three recent cases, SWIFT (UK), Trillium (US), and Timberhill (Norway), the manipulative techniques were carried out manually

Algorithms would allow a would-be manipulator to repeat their activity across a broader range of instruments in an automated manner

The manipulative techniques haven't really changed that much, the same old techniques of gaming participants are still used today, but the participants being gamed may now be machines that respond in a pre-determined manner.

Timberhill is a great example, where the algorithm was the victim

The key point is that the use of algorithms can allow a manipulation to take place on a greater scale, and potentially with a higher frequency, but they are just a tool

HIGH FREQUENCY TRADING

High Frequency trading is an extension to the previous discussion on algorithms

The practical impact of HFT on the surveillance department is that there is more data to process and analyse, in some cases, millions to billions of messages per day

The dynamic of markets has also changed, and investigations need to take this change into account

The definitions of market abuse need to be reviewed in light of the new dynamic – for example, entering and deleting orders without execution was once a signal of potential manipulation, now it is considered normal

DIRECT MARKET ACCESS

Direct Market Access allows non-members of exchange to submit orders directly to the order book through a member firm

Often the sponsoring firm ran no checks on the orders being submitted

The SEC implemented rule 15c3-5 which requires all firms offering sponsored access to have in place pre-trade, automated risk checks

The checks are required to assess credit risk and potential erroneous orders

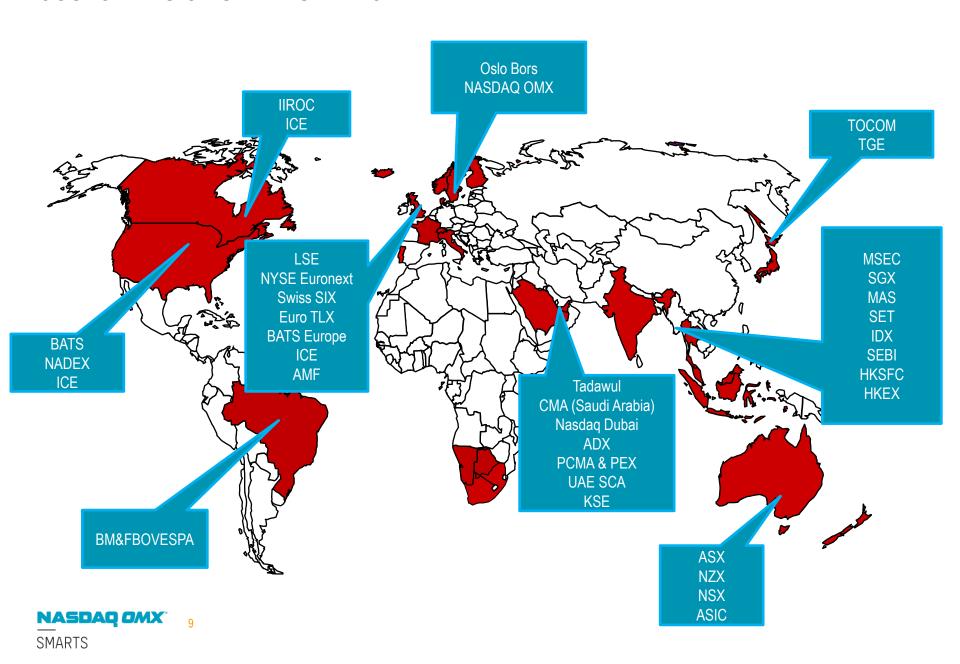
From our experience, many of the market surveillance issues we discussed with our customers were initiated by cases involving direct market access

December 2011 ESMA guidelines presented similar requirements in Europe

- Aggregate pre-trade risk checks, exposure of order against thresholds at system, client, instrument, group, desk, firm level
- SEC requires checks on total order exposure, ESMA not clear if it is total orders or executed orders
- See http://www.ften.com/thoughtleadership/european-reform.html for further detail

SMARTS

CUSTOMERS OF SMARTS INTEGRITY



CONTACT DETAILS

Please feel free to contact me with any questions or for details on NASDAQ OMX surveillance solutions

Lorne Chambers

Global Head of Sales

SMARTS Integrity

Lorne.chambers@nasdaqomx.com

Direct: +44 20 7065 8141

Mobile +44 79 1989 6668

THANK YOU