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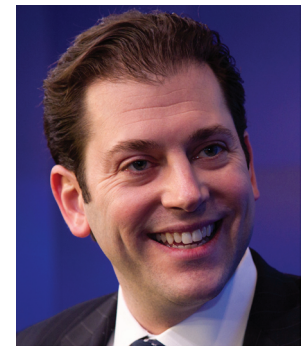
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Pre-Trade Risk: The Final Countdown

The Securities and Exchange Commission (SEC) has set 14 July as the deadline for brokers to comply with its Rule 15c3-5 governing pre-trade risk management. Although many brokers already offer some form of pre-trade risk controls, specifically for sponsored access clients, the new rule goes further than earlier ones by requiring brokers to implement controls themselves. A-Team Editor-in-Chief **Andrew Delaney** looks at the regulation's scope and explores options that may help brokers meet the July deadline.



LAST NOVEMBER, THE SEC laid down the gauntlet to the sell side by making broker-dealers expressly responsible for their own and their clients' pre-trade risk management systems and processes. The move had been widely anticipated, but the SEC took a crucial further step. By securing a mid-January publication date in the Federal Register, it set a deadline for compliance of 14 July, giving the industry just six months to get its pre-trade risk house in order.

It's certainly true that all broker-dealers have some form of pre-trade risk management process in place. What's also true, though, is that there is no broad, industry accepted standard approach. This means that the growing range of algorithmic trading and direct market access services available from brokers have no consistent way of handling risk before a trade is made. It also means that buy side clients face an array of different pre-trade risk controls from their brokers, making the ongoing shift toward multi-prime broker relationships difficult to manage. This all contributes to wider industry fears of the systemic risk posed by a 'fat finger' incident or a repetition of last May's 'flash crash'.

With the SEC ruling in the public

domain, the industry is now working to address its requirements. The additional publication by standards group FIX Protocol Limited (FPL) this month of a set of guidelines for risk management in electronic trading has served to add visibility and momentum to the initiative.

Ted Myerson, CEO of FTEN, which was recently acquired by Nasdaq OMX, points out that the SEC market access rule means that all brokers must be in compliance "not just in terms of sponsored access, but for all access points across all markets."

John Goeller, managing director, global execution services, Bank of America Merrill Lynch, and co-chair FIX Protocol Americas Regional Committee, says the risk guidelines initiative is aimed at introducing a set of best practices to the industry, particularly in light of the turmoil caused by last May's 'flash crash'.

Of course, the SEC move wasn't a big surprise. Market practitioners and systems suppliers have spent the past 18 months addressing the pre-trade risk issue through the addition of the requisite functionality to their order and execution management systems. And the big exchange operators are aggressively moving to supplement their technology line-ups

by integrating pre-trade risk capabilities with their exchange execution gateways.

The scene is set for pre-trade risk to emerge as a focus of activity for front office technologists, on both the buy side and the sell side. And though there isn't yet a regulatory equivalent to the SEC rulemaking in Europe and elsewhere, its impact is expected to be felt far beyond the borders of the US. Indeed, the ongoing MiFID Review/MiFID II looks set to explicitly prescribe – a notable change from MiFID I's principles-based approach – the adoption of the kind of pre-trade risk controls required by the SEC.

Why Risk Controls Now?

The broad increase in regulatory scrutiny around pre-trade risk stems from a desire to eradicate so-called 'fat finger' trades before they hit the market, and from the fact that a greater proportion of market activity is being driven by high frequency trading.

There is a lot of debate over precisely what proportion of trade messages is generated by high frequency traders. But what's clear is that their impact is growing and looks set to continue to do so, unless regulators

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step in to restrain their activities.

For high frequency traders like hedge funds and proprietary trading shops, a major motivation for electronic access is speed, which allows them to take advantage of markets in a variety of ways, including beating slower competitors to market, arbitraging between execution venues, and executing complex, multi-legged trading strategies with confidence of getting a fill.

In many of these cases, the broker is liable for any trades incurred by their sponsored participant, making trading risk and credit risk a significant issue for brokers. The International Organisation of Securities Commissions (IOSCO), has stated that sponsored DMA can pose both trading and credit risk issues for sponsoring brokers. And these risks – as well as the incoming regulation – have driven sponsoring brokers to take a close look at their approaches to managing the risks posed by allowing a client to use their exchange memberships.

Part of this process has been to institute pre-trade risk monitoring to include simple order size and value checks, price checks and checks against restricted stock lists. More advanced pre-trade risk checks include account-level and position-level awareness to prevent short selling or to track capital consumed, and profit and loss.

While exchanges themselves have provided risk checks – in the form of simple order-level risk checks – until now, these have been largely market specific and of little help in today's multi-venue environments. But practitioners are using exchanges' post-trade so-called 'drop reports' to analyse their trading positions and generate real-time risk calculations.

The Regulators Weigh In

In its announcement on the subject last November, the SEC moved explicitly to halt so-called 'naked access' or unfiltered DMA for non-member firms. It set in place requirements for brokers to implement pre-trade

risk controls for clients issued with market participant identifiers, essentially passes that give non-member clients sponsored access to markets.

But it went a step further: it also required all brokers with market access to put in place risk management controls and supervisory procedures to help prevent erroneous orders, ensure compliance with regulatory requirements, and enforce pre-set credit or capital thresholds. The requirements of SEC Rule 15c3-5 thus go further than the individual sponsored access rules of the individual exchanges involved, in that they apply to brokers' own proprietary and agency trading, including Nasdaq's Rule 4611, which was approved by the SEC shortly before it unveiled its own rule. While comments on 15c3-5 are due by the end of March, it's expected that it will proceed as planned.

The SEC rulemaking is expected to have ramifications elsewhere. Dan Romanelli, managing director at NYSE Technologies, with responsibility for the group's Risk Management Gateway (RMG) sponsored access offering, sees no reason why it wouldn't emerge as the benchmark for regulation globally. "The SEC rule hasn't yet become a global standard," he says, "as we haven't seen other regulators pass comment as yet. But there is really no reason for it not to. Regulators do have rules around fat finger and it wouldn't be surprising to see similar rules come to pass elsewhere."

Indeed, IOSCO published its own set of guidelines around DMA, sponsored access and pre-trade risk last summer. Like the SEC, IOSCO placed responsibility for the activities of sponsored clients with sponsoring intermediaries, namely brokers or prime brokers. In its report, IOSCO recommended that sponsors must ensure their clients have appropriate financial resources, appropriate procedures for ensuring compliance with the rules of the marketplace, and are proficient in the DMA system being used. It said market operators "should provide member firms with access to relevant

pre and post-trade information (on a real time basis) to enable these firms to implement appropriate monitoring and risk management controls."

Unless effective systems and controls are in place, it went on, direct exchange access (DEA) should not be permitted by market operators. It described these controls as "automated pre-trade controls that enable intermediaries to implement appropriate trading limits ... [and] can limit or prevent a DEA customer from placing an order that exceeds a relevant intermediary's existing position or credit limits."

While IOSCO isn't in a position to introduce regulation, the UK's Financial Services Authority (FSA) can, and to date it has played a leading role in European regulation around sponsored access. It hasn't moved to regulate as yet, but as far back as 2008 it stated that: "While post-trade measures are important for ongoing monitoring of client activity and market security, we consider that the absence of pre-trade controls would cause serious concerns regarding the adequacy of risk management. As such, we expect firms and trading platforms to conclude that post-trade measures are not enough in isolation; they need to operate alongside effective pre-trade controls to provide sufficient mitigation against the risks posed by [sponsored access]."

From its statements on the subject, it appears that the FSA believes that both execution venues and sponsoring brokers have responsibilities with respect to client risk. As such, it has identified "appropriate pre-trade and post-trade controls and measures [as] a vitally important part of effective risk management." Further: "While they are the responsibility of and need to be set by the intermediary firm, trading platforms also need to be sure that appropriate controls are in place."

What's Needed?

Based on the regulatory state of play, current market thinking points to an

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extensive set of requirements for market access platforms going forward. The existing market practice of risk control through drop copies will continue, but regulators have made it clear that it's no longer sufficient to obviate the kind of fat finger, credit limit or capital-threshold issues they seek to avoid.

If they haven't already – and many have – brokers will need to implement risk management systems with pre-trade controls that differentiate between clearing and non-clearing members, with filters that address the specific and differing needs of both. They must give sponsoring brokers a by-client view of market and credit risk. And they must support multi-venue and even multi-trading-port views, to ensure that this by-client view is accurate and comprehensive.

As well as these pre-trade checks, the risk management solution must allow for trade intervention when limits are breached or filters alerted. They must continue to support post-trade drop copies, and checks and validations of those drop copies. And there must be processes in place for exceptions management, giving sponsoring brokers a clear procedure for handling situations in which trading rules, limits or other regulations are breached.

Solutions must be destination agnostic, with their capabilities transferable across the multiple venues a broker and its clients trade on. This means the necessity for a cross-market and even cross-product platform, as trading strategies become more complex, traversing asset class and geographical boundaries. Finally, any solution needs to minimise the cost of compliance for brokers.

That seems a lot to ask for in six months. But as Bank of America Merrill Lynch's Goeller points out, "All firms have some level of risk management in place." But that in itself can result in inconsistency across the industry, and so Goeller says: FPL "got the mandate from our membership to go ahead and document best

practices."

The FPL guidelines aim to aid brokers as they review their electronic trading offerings ahead of the SEC's July deadline for compliance with its new rules in this area. But the guidelines go further than just pre-trade risk. Ultimately, Goeller says, FPL hopes to use the guidelines to open a dialogue with regulators on the topic of risk management in algorithmic trading, as well as direct market access and sponsored access.

The project to establish a set of guidelines – spearheaded by FPL members Timothy Furey, managing director at Goldman Sachs, and Neal Goldstein, managing director and US head of electronic product development, Nomura Securities International – drew on input from both sell side and buy side members of FPL's FIX community.

Rather than develop a set of protocols, tags or code – as has been the case with other FPL initiatives like the Algorithmic Trading Definition Language (ATDL) – the risk management document focuses on offering guidance, presenting a matrix of baseline risk control factors that should be applied to a firm's algorithmic trading, DMA or sponsored access activities.

The matrix breaks down the risk controls into three groups: pre-order acceptance controls; intraday controls; and pattern controls. The objective is to encourage firms to incorporate best practices in support of their electronic trading platforms. The individual controls are aimed at preventing situations where a client, the broker and or the market can be adversely impacted by flawed electronic orders.

The scope of the particular set of risk controls included in these guidelines is for electronic orders delivered directly to an algorithmic trading product, or to a direct to market (DMA) trading destination. The recommended risk controls included provides the financial services community with a set of suggested guidelines to follow that will systemically minimise the in-

herent risk of executing electronic algorithmic and DMA orders.

Build or Buy, and From Whom?

All the usual considerations apply to the build or buy conundrum that practitioners face in the pre-trade risk space. Among them is that many of the top tier firms that already have systems in place, may have taken the build route in an effort to establish competitive advantage.

Other top tiers may have opted for the risk controls on offer from the EMS or OMS suppliers, with vendors like RealTick – now part of ConvergEx – Fidessa, Thomson Reuters' Aegisoft, SunGard Trading Systems' Valdi – the former GL Trade – and buy side specialist Quod Financial all offering risk management capabilities that they say comply with incoming regulations. The appeal of such systems is that they can be extended out of the prime broker environment to clients' facilities and thus provide a 'sticky' solution for broker sponsors. And many EMS/OMS providers are providing hosted versions of their platforms that can make their solutions more palatable to smaller high frequency trading shops with minimal IT resource or budget.

Recent initiatives by exchange operators, meanwhile, point to the importance they are assigning to this area of regulation. The most visible recent development, of course, has been Nasdaq's acquisition of FTEN, a specialist in providing market access and risk controls to the high frequency trading community. What's clear from the acquisition, though, is that Nasdaq intends to use FTEN to build its pre-trade risk capabilities across all its markets, including non-equity markets, as it expands its activities as an exchange operator globally.

FTEN's Myerson says the acquisition will give Nasdaq the capabilities to address broker demand in the wake of the SEC's market access rule. FTEN will operate as part of the transaction services group at Nas-

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daq OMX, which is led by executive vice president Eric Noll, and is run as a separate entity to the group's exchange businesses.

As part of Nasdaq OMX, Myerson says, FTEN will be working with the parent's US broker-dealer community on meeting the incoming SEC requirements on pre-trade risk. FTEN will also seek to leverage Nasdaq OMX's global market relationships, which Myerson believes will give it major opportunities worldwide. Additionally, the acquisition will facilitate expansion of FTEN's core coverage from equities and options into the other listed derivatives covered by Nasdaq OMX's marketplaces.

"This is not just about a faster engine going into Nasdaq, or just about pre-trade risk," he says. "We'll be working with [Nasdaq's] technology group to figure out growing customers needs, for example in the Asian marketplace."

Nasdaq OMX's acquisition of FTEN brings it in line with rival NYSE Euronext, whose NYSE Technologies unit offers a set of pre-trade risk controls

through its Risk Management Gateway. Like Nasdaq, NYSE expects to expand the scope of its risk management capabilities beyond the US. RMG has been designed to perform a number of functions: it protects brokers from fat finger mistakes; provides cumulative and regulatory risk checks throughout the trading day; implements pre-trade risk checks before orders are routed to exchanges or ATSS; and creates entitlement controls on RMG's graphical user interface.

Romanelli says RMG is currently available for NYSE's main market, NYSE Arca and all other US lit markets, as well as for key dark pools and other ATSS, for a total of 50 or so certified destinations. It's deployed from NYSE's Weehawken and Mahwah, New Jersey, data centres, and is being rolled out to other data centres. According to Romanelli, most broker clients are using RMG as an outsourced DMA platform that allows the brokers to offer their customers access to multiple markets.

Importantly, Romanelli says, RMG is available as far afield as Brazil and

Singapore. He says NYSE is making a big push to expand the capability for the European marketplace in 2011; it is live at NYSE's Basildon liquidity hub and at other London-area data centres.

Other market operators, meanwhile, are offering pre-trade risk controls. MTFs like Chi-X Europe with its Chi-Velocity platform, are offering pre-trade controls, despite their low cost mantra. So it seems that the exchange sector has identified risk as an area it can add value both for broker members and their customers.

If the regulators and industry groups like FPL have their way, the next six months will see a more structured approach to pre-trade risk on the part of industry practitioners. This not only will protect those brokers and their customers from fat finger and market exposure risks but, it is hoped, will also reduce systemic risk in the aggregate. With regulators in Europe and elsewhere apparently set to follow the SEC's lead, the market may be a safer place to play for everyone involved come July. ●

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