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VENTURE NAVIGATOR

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From the Editor

Despite the public outcry of opponents to Regulation NMS, the SEC passed the new regulation in a 3-2 vote on June 9, 2005. The implications to market participants are expected to be many. At the very least, electronic trading and connectivity are now a requirement to be in the competition for best-price. The sell-side is thought to have the greatest impacts to their business models but what about the buy-side? In this issue of Navigator, Andy Luro, Venture Managing Consultant, provides us with a buy-side perspective of Regulation NMS.

In this edition of Venture Navigator, Marc Spitzner, Venture Business Consultant, will highlight three very hot topics in the financial services industry: recent customer information security breaches and losses of customer data; a brief Patriot Act update; and a summary of developments at the SEC.

Trading technology and trading models are expected to change rapidly due to a number of business drivers including Regulation NMS and changes in market structures; sending CIOs, vendors, and trading desk technologists strategizing to keep their competitive edge. In this issue, we highlight the discussion of a panel of industry experts from the recent NICSA Technology Conference in Boston, *Technology Outfitting of the Trading Desk,* moderated by Venture's Andy Luro.

As always, we look forward to your feedback and suggestions for future issues of Venture NAVIGATOR!

Regulation NMS: Potential Impacts to Buy-side Firms

On April 6, 2005 the Securities and Exchange Commission passed Regulation NMS, by a 3-to-2 voting margin. As evidenced by the close SEC voting results, a clear-cut case for or against Regulation NMS is hard to make. The regulation makes significant changes to the structures of national markets. Though a greater impact is seen for the sell-side business, what is the implication to the buy-side? Will the ability to trade efficiently be hindered?

Before considering potential or likely impacts, let's review the changes that Regulation NMS provides.

Under Regulation NMS, market centers must, in the words of the SEC, "...establish, maintain, and enforce policies and procedures reasonably designed to prevent 'trade-throughs' - the execution of an order in its market at a price that is inferior to a price displayed in another market." The Regulation dictates that "Best Execution" must be met for each trade transaction order. The result is that traders can no longer submit trade orders to a specific or preferred market for purposes other than attaining a best price. The SEC chose the "top-of-book" alternative, which protects only the best-displayed bids and offers on each exchange, rather than the "depth-of-book" alternative, which would protect not only the best quotes, but also all publicly displayed quotes and limit orders.

Supporters of the regulation claim it will level the playing

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Hot Topics: Customer Data Security, Patriot Act Update, SEC Update

Customer Data Security

Over the past several months there have been some very embarrassing and very public incidents of companies, both within financial services as well as in other industries, where hundreds of thousands to many millions of customers' personal information was compromised in some fashion or another. Due to the scope and severity of these losses, expect customer data security to move to the forefront, with legislative action in the com-

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field for all investors in trade markets, and will ultimately benefit the investor by obtaining the best price. Opponents feel that obtaining the best price should not be the only driving criteria when other important criteria are significant, such as: depth of trade interest; liquidity; completing timely trade order fills; maintaining market efficiency; and firmness of quotes. If the best price for a trade is a displayed quote on a particular market, it cannot be ignored; the trade must go through the market that displays the best price. Existing market orders that are in reserve or hidden and manual quotes are not protected by Regulation NMS and thus can be ignored by a trader. However, both block trades (large orders) and smaller orders are covered by the regulation.

Regulation NMS is more than the "Trade-Through Rule" component. Other components include:

The **"Access Rule"** attempts to provide a fair and efficient environment in which quotes can be submitted, viewed, and maintained within the National Market System. Key features include: private electronic linkages by market centers where market quotes are provided to their market center members, subscribers, and customers; limiting access fees; requiring self-regulatory organizations (SROs) to adopt and enforce self-governing rules that prohibit locking or crossing of quotes of other trading centers; and lowering the volume threshold required for displaying quotes from the current 20 percent of average daily volume to a new threshold of 5 percent.

The **"Sub-Penny Rule"** prohibits exchanges, ECNs, agencies, and other market makers from quoting NMS securities in increments of less than a penny ($0.01), except where the security is priced at less than one dollar ($1.00).

The **"Market Data Rule"** alters the formulas for calculating revenue allocations generated by market data fees. Fees for market data are charged to self-regulatory organizations that produce the data for use by investors in the marketplace. Revenues would be allocated based on the ability of a market center to generate quotes with best prices and largest orders. This is meant to prevent the occurrence of a broker breaking up a large block order into many smaller orders for the purpose of maximizing revenues. The rule also allows market centers and broker-dealers to provide their own market data independently, including or excluding fees.

Now, let's look further into the impact to the buy-side of the "Trade-Through Rule" and the "Access Rule" components of Regulations NMS.

In meeting the "Best Execution" criteria of the "Trade-Through Rule," it is likely that it will become more difficult to buy large blocks of stock at a desired price. For instance, a large-block order will not be allowed to skip a best price for a small quantity of the block order versus buying all, or almost all, of the large-block order at the next-best price. It is entirely possible that in the time it takes to execute the small trade order transaction, another market participant might have responded to the next-best price opportunity before each of the smaller orders was executed. In this example, the original trade may result in higher priced executions to fill the large-block order, and a higher average price for the entire block order. Additional transaction costs associated with more trades to fill the large-block order may result. Trade order transaction costs are an equally important factor for institutional investors, as are liquidity and certainty of completing a trade. Execution price alone is not the only criteria for a successful trading strategy. It is possible to get better average prices when trading is not limited by a rule that may often result in smaller trade order fills.

On the positive side, the "Trade-Through Rule" may provide more transparency in the trade-order market place. There will be an incentive for the buy-side to display its market limit orders and thus provide greater liquidity to the market. Rather than looking for a capital commitment by a broker for an entire order, the buy-side may break up their order and take advantage of depth-

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of-book within the market-place. Of particular interest is the increasing use of algorithmic trading that would allow for taking fuller advantage of this opportunity. As with most cases, a positive result is often balanced by a potentially negative case. It is possible under these scenarios that the marketplace may see a slow- down in trade-order execution thus impacting the immediacy of completing trade orders. Further, institutions have been reluctant to expose their trade intentions in the marketplace for fear of negatively impacting liquidity. When a large institution exposes trade intentions, the balance of sell orders vs. buy orders may be altered to its disadvantage. Institutions may decide to access crossing networks such as Liquidnet to handle multiple smaller orders if their orders do not reach the threshold covered by the Regulation NMS "Access Rule."

The impact of the "Access Rule" to the buy-side is that exposure is somewhat limited. Buy-side firms deal with brokers through a commission fee structure where the broker needs to worry about all the underlying costs of executing a trade order. It is the sell-side that must deal with the issues meeting "Best Execution" requirements, such as: maintaining electronic linkages by market centers where market quotes are to be accessible by market center members, subscribers, and customers; limiting access fees; ensuring that locking or crossing of quotes does not occur; and lowering the volume threshold required for displaying quotes from the current 20 percent of average daily volume to a new threshold of 5 percent. In addition, the sell-side will need to address increased regulatory requirements. Underlying access fees and the cost of filling a trade order will ultimately impact the commission cost charged to the buy-side over the long run.

Connectivity in support of electronic trading will enable investment firms to compete more effectively, process trades more efficiently, and address regulatory compliance. Instead of supporting access to markets, connectivity becomes a requirement for gaining a competitive advantage. In order to compete effectively in the trade marketplace, the ability to adapt to changing regulatory requirements and react to opportunities in the securities market will be paramount.

Automated quotes will be required to meet trade-through protections. The result is quotes must be displayed and must be immediately accessible through automatic execution.

Use of algorithmic trading is likely to become even more prevalent with proprietary algorithms being developed by the buy-side, in addition to those provided and marketed by the sell-side. How trade orders are placed into the markets will become more important. An example of this is slicing of orders as well as the likely increased volume of actual trade orders. There have been predictions that with the new regulations, a large block order may result in fills as small as 200 shares each.

How will the increased volumes impact your trade order management systems? Order management systems will need to support trading strategies that utilize more pre-trade analytics such as VWAP, arrival price analysis, implied shortfalls, end-of-day close, liquidity seeking/testing and liquidity forecasting.

Regulation NMS will be rolled out incrementally with a small group of stocks April 10, 2006, to allow firms to adjust to procedures and execute systems testing. This will include: 100 NYSE stocks, 100 NASDAQ stocks, and 50 AMEX stocks. All trading centers will be required to comply with a larger universe of securities by June 12, 2006.

The final impact of Regulation NMS is unlikely to be known for a number of years, but it clearly illustrates the growing importance of electronic trading and inevitable increase in electronic trading volumes within the U.S. equities marketplace which will present a whole new set of technical challenges for CIOs and vendors.

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Hot Topics: Customer Data Security, Patriot Act Update, SEC Update

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ing months.

So far this year we have seen Bank of America lose a tape back-up of 1.2 million credit card customers *and* have potentially 60,000 customers' account data stolen from inside the firm. In the same spree of stolen information from Bank of America, Wachovia, Commerce Bancorp, and PNC Financial Services Group were also hit, with the loss from all four institutions topping 670,000 accounts possibly being compromised. The perpetrators were caught and the data was recovered, but only after it had been sold to a number of law firms and credit collections agencies.

This issue is not only impacting financial services firms. In early May Time Warner reported the loss of unencrypted data tapes containing names and social security numbers of 600,000 current and former employees while the tapes were being shipped to a storage facility. A similar incident happened in June when Citigroup reported the loss of unencrypted data tapes containing information on 3.9 million customers. Both firms have stated that they are in the process of refining their data storage procedures. As quoted in a May 4, 2005 *Information Week* article entitled "After Data Losses Like Time Warner's, Companies Need to Rethink Data Storage," Tony Asaro of Enterprise Strategy Group writes "it is estimated that only 7% of businesses encrypt backup tapes."

So what can we expect from regulators? Currently, many states have taken California's lead and have identity theft laws on the books, with more states following suit. The federal government is also taking action mandating that companies inform customers when personal information has been stolen or lost and investigate any data loss incidents. And finally, corporate executives are joining in by speaking up and pushing for legislation around information security. They are also implementing internal controls around data back-ups, encryption, and tighter procedures around back-up tape transport.

Patriot Act Update

The Patriot Act controversy is heating up once again. There were a number of sunset provisions in the initial rush to pass the Patriot Act that are up for renewal at the end of this year. These sunset provisions mostly revolve around the highly controversial search and seizure, wiretap and similar provisions that provide law enforcement with broad reaching powers that many feel violate the Fourth Amendment. Much of the Act was controversial because of the potential negative impact on civil liberties. The anti-money laundering regulations, Customer Identification Program (CIP) and Suspicious Activity Report (SAR) provisions appear to be less controversial and should remain intact. For the financial service industry, this means that all of the effort put into anti-money laundering, CIP and SAR efforts was time well spent, and will continue to be of great value. Meanwhile, the Financial Crimes Enforcement Network (FinCEN) has been continuing to refine its anti-money laundering rules and is seeking comment on a number of provisions.

SEC Update

A lot has been happening at the SEC: the recent retirement announcement from Chairman Donaldson, the nomination of Rep.Christopher Cox to be the next Chairman, and the controversial passage of Regulation NMS. With the retirement of Chairman Donaldson, and the nomination of Rep. Cox, the SEC is going through an important change in leadership. The Securities Industry Association recognizes Rep. Cox as an excellent choice to succeed Chairman Donaldson.

In the midst of this change, on June 9 the SEC voted 3-2 to adopt Regulation NMS. The regulation is generally designed to strengthen the U.S. Equity markets through the adoption of five initiatives. Together, these initiatives are intended to promote fair competition between individual markets and to link these markets together to encourage more efficient interaction between buyers and sellers of NMS securities. The SEC website has published the final rule, a letter of dissent from Commissioners Glassman and Atkins, and comments from a number of industry leaders (see http://sec.gov/rules/final.shtml).

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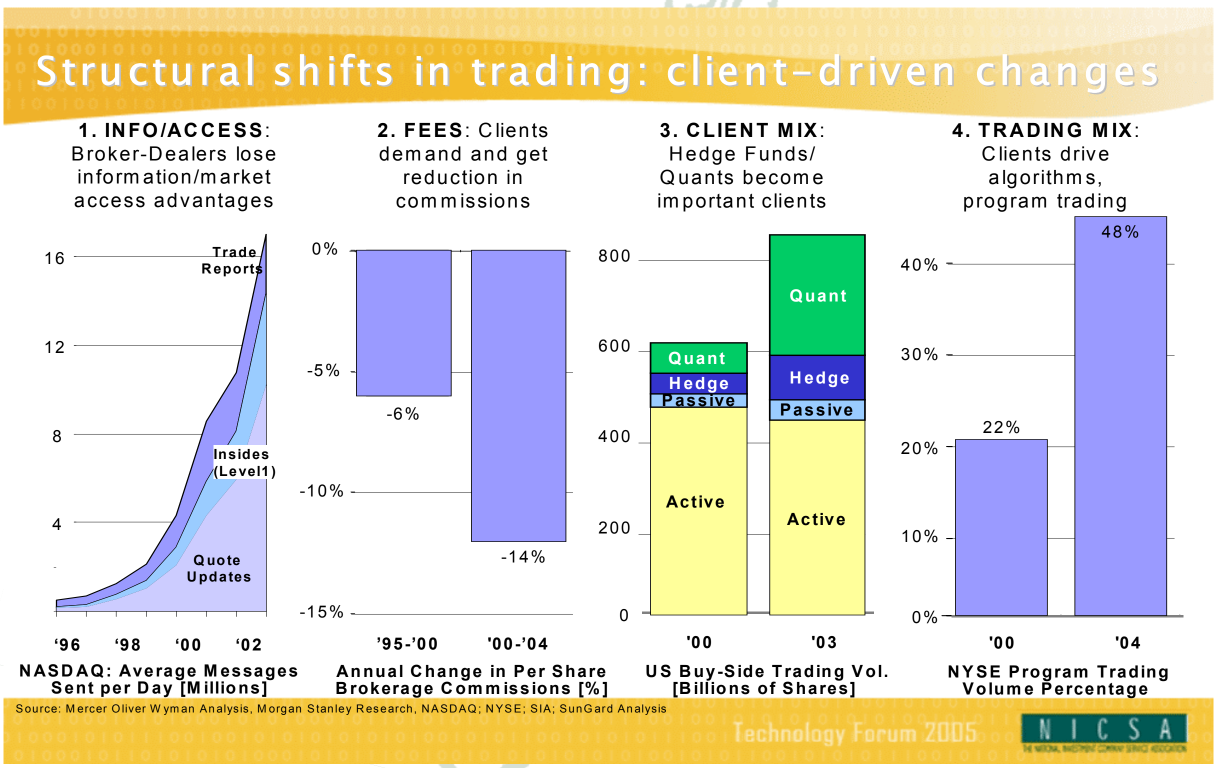
Highlights from the NICSA Technology Conference: Technology Outfitting of the Trading Desk

"Technology Outfitting of the Trading Desk" has been a hot topic of sell-side and buy-side firms and was a topic of discussion at the recent NICSA Technology Conference held in Boston. Andy Luro moderated a panel of industry experts who discussed the many challenges faced by those responsible for the technology of trading desks today.



Andy Sommers of Putnam Investments kicked off the session by comparing the maturity of equity and fixed-income trading environments, "Equity trading is clearly 'the mature environment' both in order generation and robust electronic communications." Rick Enfield of Charles River Development noted, "Thanks to regulation and changes in market structures in the past year, new challenges in the equities market exist. These challenges include: automated routing, algorithmic trading, the ability to execute ultra-high trading volumes and the impact of wealth management."

The panel was in agreement that on the fixed-income side, firms are coping with the increasing use of derivative instruments, in particular, Credit Default Swaps. Fixed-income trading is faced with a number of challenges: improving electronic communications; increased demand on compliance; generic security processing; data management; alternative trading systems (ATS) processing; and origination of the order.

Mark Clark from SunGard/Brass offered a look at changes in trading technology from the sell-side. Pressures from evolving market structures and regulation are causing structural shifts in trading. These drivers include: Regulation NMS; combinations and evolving market microstructures (NYSE /ARCAEx); SEC and SRO enforcement and Sarbanes-Oxley. The result is moving trading technology toward increased automated and rules-based trading; electronic client relationships to support sponsored direct-market access; and

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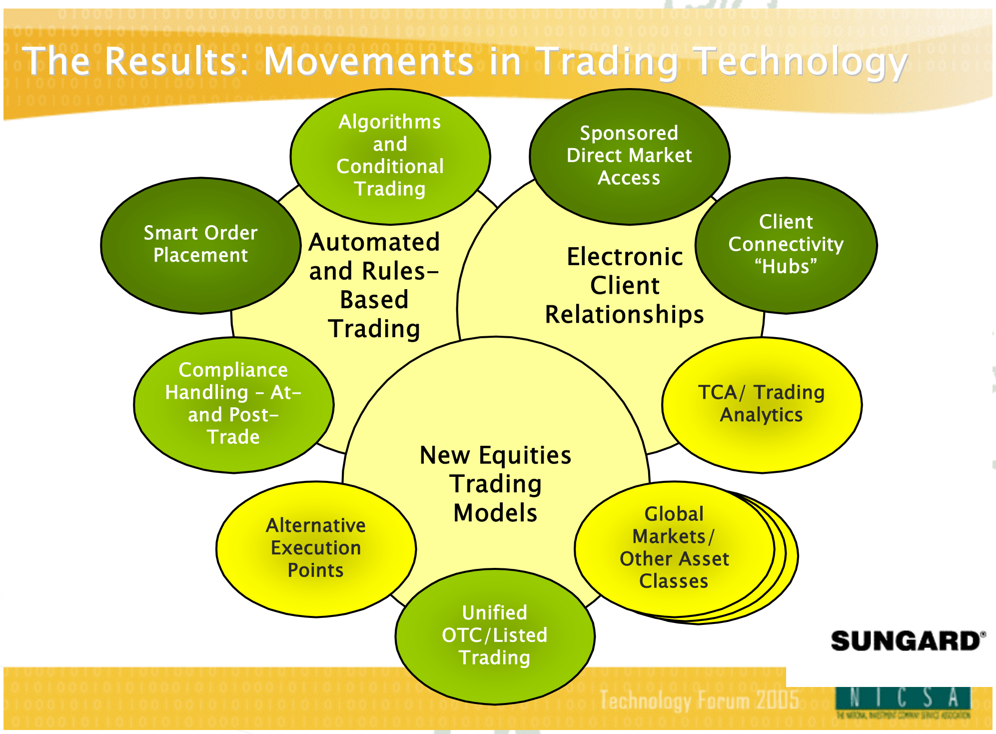
new equity trading models.

Direct-market access and algorithmic trading are becoming increasingly important to the buy-side because they mean increased trading control, reduced information leakage and lower commission and administrative costs. What's coming down the pipe? Mark Clark says, "Direct-market access will drive smart order placement and trade-through compliance; increased execution points, e.g., block systems; new markets, ECNs, ATSs; and OTC, listed, cross-asset, and cross-market access. With algorithmic trading, look for: commoditized algorithms, implementation outside of the equity markets, strategy selection support, benchmarks and analytics." Making the following points, Mark Clark summed up the session by reviewing a few areas to watch:

- Exchange Market Structure
- Market Data – more of it
- Regulation NMS Interpretations
- Compliance – the ability to prove compliance with the new trade-through rules
- New Entrants

There is no crystal ball, and we really don't know how it will all play out, but one thing we know for sure is that the competitive landscape has changed again, and those of us responsible for the technology of trading desks had better be on our toes.



Event Calendar

We will be exhibiting, sponsoring, and/or speaking at the following industry tradeshows. If you plan on attending any of these events and would like to schedule a meeting to learn more about Venture, please contact us at 781.932.7544.

NICSA East Coast Regional Meeting	September 29, 2005	Seaport Hotel	Boston, MA	www.nicsa.org

About VENTURE Financial Systems Group, LTD.

Venture Financial Systems Group, LTD. is a consulting firm specifically focused on delivering business and technology solutions to the investment industry. Venture offers a wide range of consulting services including strategic planning, software and vendor service evaluations, system integration, customized software solutions, and implementation services. For more information, visit: www.venturefsg.com.

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