NEW INITIATIVES

MODERATOR
Hedi H. Reynolds

PANELISTS
Kim Bang
William Lupien
Peter Madoff

HEDI REYNOLDS:[1]

Dan Tulley, the former Chairman of Merrill Lynch, liked to quote hockey player Wayne Gretzky when he talked about the future, as saying "the key is to keep your eye on where the puck is going, not where the puck has been." Keeping track of where the puck is today is extremely difficult. Perhaps, today, our panel will give us some ideas on how to stay on track by sharing insights into new developments in the markets and giving opinions as to where business is headed.

Kim Bang will discuss Bloomberg's TradeBook and the increased use of electronic communication networks. He will be followed by William Lupien, who will outline the implementation of the OptiMark system and how it will level the investment playing field. We will conclude with a presentation by Peter Madoff, who will explain the purpose of the conversion to OATS and review the proposal for Next Nasdaq.

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[1] Managing Director, Morgan, Keegan, Memphis, TN; head of the Nasdaq Trading Committee; and the STA Chairperson. She has served on many National Association of Securities Dealers' committees in the

KIM BANG:[2]

First, I would like to reflect on where Bloomberg's TradeBook came from and share with you some of the fundamental reasons for the success of this newly introduced communications network. Second, I would like to briefly discuss the market's future.

Essentially, TradeBook's success is a result of the new Order Handling Rules ("OHR").[3] By promulgating the OHR, the Securities and Exchange Commission ("SEC") has successfully created a more fair and efficient market place by requiring the disclosure of the best stock prices available. This has resulted in the return of liquidity[4] to the Nasdaq National Market System ("NMS"). The increased efficiency and liquidity offered by the OHR has aided TradeBook in the way it provides service to its customers. TradeBook, which serves as an electronic communications network ("ECN"),[5] represents its customers' bids and offers in the NMS. The increased availability offered by the OHR has enabled TradeBook to improve the manner in which it represents its' customers in the Nasdaq quote montage.[6]

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past, including Trading and Market Surveillance, and is currently on the Market Operations Committee and the Traders Examination Committee.

[2] Manager of Development and Planning, Bloomberg's TradeBook. He is a past President of Futech Capital, a hedge fund, and also developed a European foreign exchange cross-trading business for American International Group Trading Corporation.

[3] Order Execution Obligations, 62 Fed. Reg. 40,732 (1997) (to be codified at 17 C.F.R. pt. 240) (proposed July 30, 1997). The OHR require market makers to inform the investing public if there is another customer that is willing to buy, through a limit order, stocks at better prices than what is being quoted by the market-maker. 17 C.F.R. § 240.11Ac1-1(c)(5)(i) (1996). The OHR further require disclosure by market makers of the amount of shares that their customers have for sale at their limit order price. 17 C.F.R. § 240.11Ac1-1(c)(5)(ii (1996). Finally, the OHR require Nasdaq dealers to disclose whether they have traded better prices on private trading systems than they have traded publicly. 17 C.F.R. 240.11Ac1-1(a)(25) (1996).

[4] Liquidity is "a market characteristic that assures investors that they can promptly dispose of or purchase securities at a price reasonably related to the immediately preceding price for that security." *See generally* Jonathan R. Macey & David D. Haddock, *Shirking at the SEC: The Failure of the National Market System,* 1985 U. ILL. L. REV. 315, 325 (1985).

[5] 17 C.F.R. § 240.11Ac1-1(a)(8) (1996).

[6] The Nasdaq quote montage consists of market maker's quotes, ECN orders, and Limit Order File orders. Self-Regulatory Organizations; Notice of Extension of the Comment Period for the Proposed Rule Change by National Association of Securities Dealers, Inc., Relating to an Integrated Order Delivery and

Another factor contributing to TradeBook's success is the increased use of ECNs. SelectNet, an ECN, is the primary electronic trading vehicle used by the broker-dealer community. It allows broker-dealers to access the National Best Bids or Offers ("NBBO"),[7] including ECNs customer limit orders. After the OHR phase-in, in October of 1997, the use of Nasdaq's SelectNet has increased by eight to ten-fold.

ECN customers now experience more liquidity in the Nasdaq quote montage. Liquidity in the Nasdaq has surged and benefited ECN customers who are now able to display limit orders in the Nasdaq quote montage. ECN customers currently trade in increments of 1/16 of a point or smaller, and spreads in the NBBO have narrowed by as much as forty percent.[8] As a result, ECN customers can now access liquidity on par with the market-maker community.

TradeBook would like the SEC to address regulatory issues to improve market transparency and execution quality. One concern involves which market participants should be required to display orders in the Nasdaq quote montage. Currently, market makers must display all customer limit orders below 10,000 shares, while institutional participants may choose whether to display their orders in the Nasdaq quote montage.

Execution System, 63 Fed. Reg. 15,471 (1998) [hereinafter Integrated Order Delivery and Execution System].

[7] The term National Best Bids and Offers ("NBBO") is defined under SEC Rule 11Ac1-2 as the highest bid or lowest offer for a security. Self Regulatory Organizations; Notice of Filing and Order Granting Accelerated Approval of Proposed Rule Change by the Chicago Stock Exchange, Inc., Relating to Enhanced SuperMAX and Timed Enhanced SuperMAX, 61 Fed. Reg. 40,690, 40,690 (1996). All Nasdaq dealers input their NBBO prices to the Nasdaq system. *See 3d Circuit Reverses Judgement in Nasdaq Pricing Suit*, ANDREWS SEC. & COMMODITIES LITIG. REP., Feb. 11, 1998, at 3.

[8] *See* Roberta S. Karmel, *Spreads, Limit-Order Protection and Best Execution*, N.Y.L.J., June 19, 1997, at 3 (stating that the OHR have affected stock spreads and forced Nasdaq to quote stocks in increments of 1/16).

In a recent Concept Release,[9] the SEC solicited comments in re-evaluating the regulation of exchanges and other markets. TradeBook expresses concern over the inequality among market participants. For example, consider the following disparity in the regulations: a market maker, acting as an agent for an institution, is required to display the institution's order on the Nasdaq quote montage even if the institution requests that the order not be displayed. However, an institution, acting on its own behalf, may choose not to display their order. TradeBook believes this disparity in the regulations is unfair to market makers and to the institutions that they serve and asserts that the disparity should be remedied.[10]

The SEC seems to favor mandating that all limit orders be displayed in the Nasdaq quote montage.[11] The Nasdaq quote montage will then become the single definitive liquidity source. Once all orders are displayed in the NBBO, concerns over market fragmentation will diminish. TradeBook encourages its institutional customers to display their limit orders in the NBBO. Since TradeBook employs trading tools that leverage trading in the quote, it welcomes the SEC's proposal for greater market transparency.

Connectivity is another issue that TradeBook would like the SEC to address. TradeBook suggests that the SEC enhance connectivity among market participants, Alternative Trading Systems ("ATS"), ECNs, and market makers. This would put these

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[9] Regulation of Exchanges, 62 Fed Reg. 30,485 (1997) (to be codified at 17 C.F.R. pt. 240) (proposed June 4, 1997) (discussing the SEC's concern with the technological advances and the corresponding growth of alternative trading systems and cross border trading opportunities).

[10] *See* Letter from Roger D. Blanc, Willkie Farr & Gallagher, counsel for Bloomerg L.P. to Jonathan G. Katz, Securities and Exchange Commission (Oct. 3, 1997), *available in* Westlaw, SC41 A.L.I.-A.B.A. 13, 23 (Jan. 8, 1998) [hereinafter Blanc Letter].

[11] *See* Karmel, *supra* note 8 (describing the overall benefits the SEC asserts will result from uniform rules to display customer limit orders, including enhanced transparency, improved price competition, and low investor transactional costs).

participants on an even playing field with Nasdaq's SelectNet, which already provides connectivity because it is the primary electronic trading link between market participants.[12] Only large network operators, like Bloomberg and Reuters, have technology and electronic connectivity between market participants as efficient as Nasdaq's.

TradeBook has experienced difficulty with the current market structure and believes this difficulty arose in part because of the role the Nasdaq plays. Nasdaq, a quasi-regulatory authority, operates and controls connectivity between market participants. It also determines how orders and executions are sent and delivered. With Nasdaq serving as regulator, connectivity operator, and trading system provider, many conflicts of interest are bound to arise, and have arisen.[13]

For example, on two different occasions in the past month Nasdaq shut all ECNs out of the quote montage because its SelectNet system went down. SelectNet's failure was not caused by ECN connectivity or system failures. On both occasions, Nasdaq permitted the market-making community to continue to post their bids and offers on its quote montage. Nasdaq, however, decided to shut all ECNs out of the quote montage, believing that ECNs would be unable to provide the connectivity necessary for its customers to access the ECNs' bids and offers while Nasdaq's SelectNet was down. This should not have been permitted.

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[12] *See* Blanc Letter, *supra* note 10, at 18 (noting TradeBook's concern that SelectNet places ECNs at a technological disadvantage).

[13] Regulations of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 23,504, 23,513 (1998) (to be codified at 17 C.F.R. pts. 201, 240, 242, and 249) (proposed Apr. 29, 1998) (commenting that the SEC understands that potential conflicts may arise when SROs operate competing markets and oversee Alternative Trading Systems). The SEC has stated it believes that these potential conflicts can be managed through SEC oversight and are lessened by recent NASD reform. *Id.*

While TradeBook may not have adequate telephonic access in a crisis, neither do most market makers. Moreover, the electronic access that TradeBook provides its customers is on par with, if not superior to, that which Nasdaq provides. Many of TradeBook's participants have direct access to Bloomberg's nearly 100,000 terminals worldwide.[14] In addition, TradeBook participants have access to Bloomberg's trading desk services, which can provide telephonic access to broker-dealers regardless of whether Nasdaq's SelectNet is operating.

TradeBook is evolving as an ECN. Its innovative trading technology has changed the way an ECN operates, from a simple order routing connection to a value-added trading tool. TradeBook's initial innovation was its reserve feature. This feature enabled the user to display part of an order in the quote montage while simultaneously having a reserve quantity. This quantity automatically replenishes every time the users displayed amount is traded, resulting in greater execution quality.

TradeBook also has a random display generator that automatically changes and replenishes the reserve once the displayed portion trades. This feature enables the user to maintain a position in the NBBO while the order adopts a random display. It disguises the size of the user's full order, thereby decreasing the market impact and increasing execution quality.

In addition, TradeBook has an anti-lock break feature that keeps the user from locking and crossing the market when initiating an order. This feature insures that the market maker participants who use TradeBook comply with existing rules. It also ensures that institutional participants do not buy or sell beyond the NBBO.

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[14] *See A Conversation with Bloomberg, Part Two*, SEC. INDUS. NEWS, June 29, 1998, at 1.

TradeBook also has an Immediate Cancel Order ("ICO") feature that enables the user to buy or sell on TradeBook quickly. A responding order does not appear publicly and never leaves a residual amount on TradeBook. Where the user responds in anticipation of accessing reserve with a greater amount than what is displayed, the user's orders will not be disclosed publicly. The execution is instantaneous and has minimal market impact.

TradeBook also offers "smart pegging" to the bid, the middle, and the offer. Smart pegging allows the user to float his order freely up and down or directionally, depending on his pre-determined trading profile.

Bloomberg's TradeBook will soon release an equity-trading platform that will merge content, quotes, news, and research with liquidity. Incorporated within this integrated trading system will be the Financial Information Exchange ("FIX")[15] protocol, Order Routing, Indications of Interest ("IOI"), Execution Reports and an Order Management System ("OMS") for portfolio basket trading.

Currently, TradeBook programmers are working on three new strategic initiatives. The first is "Discretion." The Discretion is the fraction that the user is willing to buy or sell above or below the market. A bid or an offer may be posted onto TradeBook with a fraction added to the bid or subtracted from the offer. This fraction is never publicly displayed. An order, which is required to have a display component, may legally also have a reserve associated with it.

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[15] *See Set on Being the FIX Standard, Trinitech to Launch NYFiX*, WALL ST. & TECH., Oct. 1, 1997, at 8 (describing the FIX system as a system based on a message protocol that enables buy-side and sell-side firms to send orders to an assortment of execution destinations, including order routing systems on the exchanges' trading floor).

Discretion benefits the user and the market. For example, assume the market has been quoted between 1/4 and 1/2 and the user wants to buy 50,000 shares. The user will publicly join the 1/4 bid with a small displayed quantity and a 1/8 discretion. This 1/8 discretion indicates an undisclosed willingness to transact at 3/8. When the 3/8 contra-offer comes in to sell 20,000 shares, TradeBook launches an automatic response to that offer. This eliminates constant monitoring and speedy keyboard response by the user, who will be able to execute 20,000 shares with minimal market impact at 3/8 before other market participants.

A second initiative to be advanced by TradeBook will allow participants to make electronic and anonymous trades with other market makers and ECNs. This will enable the user to respond directly over Nasdaq's SelectNet to liquidity posted in the Nasdaq quote montage. Currently, only the broker-dealer community has the ability to access Nasdaq's SelectNet.[16] Currently, institutions only have the ability to initiate a bid or offer and be represented in the Nasdaq quote montage. TradeBook participants will soon receive this high level of access. Institutions will then be able to initiate and respond directly to liquidity posted in the NMS by market makers and other ECNs.[17]

Our third initiative focuses on giving the user the ability to negotiate with open TradeBook orders, executed orders, aggregated volume, and historical executions. To accomplish this, TradeBook is developing liquidity search algorithms to identify liquidity based on the user's criteria. In addition, Trademark is developing IOI that will allow institutions to send out indications to other institutions when the indication is associated with a bid or offer on TradeBook.

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[16] Integrated Order Delivery and Execution System, 63 Fed. Reg. 15, 471, 15, 471 (1998).
[17] *Id.*

TradeBook's overall goal is to aggregate as many liquidity sources as possible by applying innovative trading technology. It will continue to build and aggregate liquidity via links to the NMS, to market makers directly, and to other ECNs and ATSs.

Allow me to incorporate all of this into an example of how this would work. A user enters an order to buy 175,000 shares at $18 1/4 on TradeBook at 8:45 a.m. At 9:00 a.m., a TradeBook participant responds and the user trades 10,000 shares at $18 1/4. At 9:15 a.m., the user routes 50,000 shares to AZX and trades 15,000 shares at $18 3/16. By 9:30 a.m., the order is displayed in the national quote montage and trades 50,000 shares at $18 1/4 at the open. At 9:50 a.m., the user receives a FIX IOI from a market maker and the user electronically responds for an additional 75,000 shares at 18 3/16. At 10:30 a.m., when the market starts to move and offers have begun to fade, the user decides to execute, over SelectNet, the balance of 25,000 shares at $18 3/8 against other market makers and ECNs involved in the offer. Simultaneously, the user is also participating in TradeBook's system, the AZX crossing system, and IOIs. This significantly increases execution quality while allowing the user to prevent anyone from trading through or away from the order, without missing liquidity on other systems.

TradeBook is in the process of welding various liquidity sources together. This combination will allow one ticket, one order entry, one monitoring device and one integrated order and execution blotter. TradeBook envisions a world of "straight-through" trade processing from the inception of an order through its execution and allocation.

WILLIAM LUPIEN:[18]

Everyone here today may agree with me that our industry needs improvements to deal with the market structure's inability to solve problems that arise. To that end, I will briefly discuss when we will launch OptiMark, then describe what it is, how it works, and why we developed it.

When will we launch OptiMark, meaning when will OptiMark be up for live trading? We will most likely launch the Pacific Exchange ("PCX") implementation around Labor Day of this year.[19] Currently, we are uncertain as to when we will launch the Nasdaq implementation, as we are still working with Nasdaq on a variety of technological and structural issues, as well as considering comments, ideas, and suggestions from the community about what improvements might be necessary.

What is OptiMark? It is a patented electronic matching system that permits users to present orders and execute trades. Managed by a supercomputer, OptiMark will secure buy and sell orders for stocks from institutional and individual investors. It will match the orders immediately with investors' preferred prices and execute the trades.[20]

OptiMark is a call market.[21] Most of the well-known markets in this country, such as Nasdaq, are not call markets, but rather continuous markets.[22] In some cases

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[18] Chairman and CEO, OptiMark. He has spent seventeen years as a specialist on the floor of the Pacific Stock Exchange and started with Instinet in 1983 where he was Chairman and CEO until 1988, when Reuters acquired Instinet.

[19] *See The Optimark Trading System: An Alternative to Electronic Communications Networks*, WALLSTREETLAWYER.COM: SEC. IN THE ELECTRONIC AGE, Jan. 1998, at 1 [hereinafter *OptiMark Trading System*]; Self-Regulatory Organizations, Pacific Exchange Inc.; Order Approving Proposed Rule Change and Notice of Filing and Order Granting Accelerated Approval of Amendment Numbers 1, 2, and 3 to Proposed Rule Change Relating to the PCX Application of the OptiMark System, 62 Fed. Reg. 50,036 (1997) [hereinafter PCX Application of the OptiMark System].

[20] PCX Application of the OptiMark System, 62 Fed Reg. 50,036, 50,036 (1997).

[21] In a call market, trading in a stock takes place only when that stock's turn comes up in a rotation. *See* Morris Mendelson and Junius W. Peake, *Intermediaries' or Investors': Whose Market Is It Anyway?*, 19 J. CORP. L. 443, 457-58 (1994).

[22] In a continuous market, trading on a given issue may be conducted at any time the market is open. *Id.*

continuous markets have one or more call markets interspersed in their market.[23] For instance, the listed market may have a call market at the opening. In fact, because of the NMS, all specialists in various markets around the country can participate in the call process.

I mention the fact that OptiMark is a call market to emphasize that OptiMark is not going to replace the current continuous market or dealers. Instead, OptiMark will augment the traditional process by introducing a call market with periodicity during the day.[24] Everyone, from single retail orders to large institutional orders, will be able to participate in this call market.[25]

Certified anonymity and non-disclosure of the user's trading profile is another positive quality of OptiMark.[26] This is done primarily for the benefit of institutional investors who frequently have very large-sized orders. These orders, when disclosed to the market, may reveal the institutional investor's trading intention and cause a response in the market.[27] We provide certified anonymity and non-disclosure by engaging a third

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[23] *See generally* Allen B. Atkins and Edward A. Dyl, *Market Structure and Reported Trading Volume: Nasdaq Versus the NYSE*, J. FIN. RES., Sept. 22, 1997, at 291 (showing a comparison of the trading volumes of the NYSE and Nasdaq, where both markets structures are detailed as a continuous market system).

[24] PCX Application of the OptiMark System, 62 Fed. Reg. 50,036, 50,036 (1997) (stating that the Optimark System would be used in addition to PCX's traditional floor facilities to trade PCX-listed securities).

[25] *Id.* at 50,037 (stating that the PCX Application of Optimark would be available to all PCX members and, through the members, to non-members).

[26] *See Optimark Trading System, supra* note 19.

[27] PCX Application of the OptiMark System, 62 Fed. Reg. 50,036 , 50,042 (1997) (noting industry view that trading interest is currently difficult to access because of concerns about the market impact cost of large orders); *see OptiMark Trading System, supra* note 19; *See id.* (describing the phenomenon of "market impact" that can result in prohibitive costs for institutional investors). When information about a large investor's trading interest "leaks" into the market, it can cause the stock price to move ahead of the large order. The investor may then have his order executed at a "worse" price than he should receive. *Id.*

party, Deloitte & Touche, to attest to the fact that even OptiMark personnel are unable to view the users' trading profiles.[28]

Unlike Reuter's Instinet, OptiMark is not a broker-dealer or an ECN. OptiMark is a facility of an exchange and a Self-Regulatory Organization ("SRO").[29] Because OptiMark is not a broker-dealer, and a broker-dealer must represent every order that OptiMark receives, it operates more slowly than Instinet in many regards.

In addition, because it is not an ECN, OptiMark is subject to different regulations. As a facility, OptiMark is regulated through the SRO, which means that every move that we make is subject to the new rules that are currently proposed.[30] Subsequently, we will have to go through the SEC's normal rule change procedures and await approval, disapproval, or have the rule open for comment.[31]

All of OptiMark's deals with exchanges in the United States to this date are non-exclusive, so any exchange might use this technology. We have shown OptiMark to every exchange in the United States, as well as several exchanges in the international arena that are interested in this technology.

Why did we develop OptiMark? About four or five years ago, I started hearing complaints about a lack of liquidity and a high market total trading cost. Frankly, I didn't understand their complaints. According to the newspapers, the New York Stock Exchange ("NYSE") was trading 350 to 450 million shares a day, with the Nasdaq at a

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[28] *See OptiMark Trading System, supra* note 19.

[29] *See id.* (stating that OptiMark will operate as a facility of the Pacific Stock Exchange). A "facility" of an exchange is its premises or property, or any right to the use of such premises or property or any service thereof for the purpose of effectuating or reporting a transaction on an exchange. Securities Exchange Act of 1934, §3, 15 U.S.C. § 78c. A SRO is the name for any national securities exchange, registered securities association or registered clearing agency. *Id.*

[30] *See OptiMark Trading System, supra* note 19 (stating that as a facility of the Pacific Stock Exchange, OptiMark will be subject to that exchange's self-regulatory jurisdiction).

[31] Securities Exchange Act of 1934, §19(b), 15 U.S.C. § 78s(b).

comparable level. In fact, my friends were complaining because the number of shares that the institutional investors wanted to trade often exceeded the market in any particular security, which resulted in decreased liquidity.

That the impact of this decreased liquidity on institutional traders' choices was significant may be illustrated by the Plexus Group's[32] updated study on the total trading cost for large-cap and small-cap funds. The Plexus Report is based on percentage points, with a basis point equaling one one-hundredth of one percent. The total trading cost for an average institution moving a large-cap stock was approximately 100 basis points.[33] The total trading cost for an average institution moving a small cap stock was approximately 450 basis points.[34] Four hundred, fifty basis points is the annual difference between having a five-star rating and having a two-star rating, based upon risk and annual rate of return. This is an extremely high cost for a small-cap money manager.

This high cost is unfavorable because institutional investors have to telegraph their intentions to the market. Institutional investors do not want to be held captive in a market in this manner; they want to be able to cancel or change their orders rapidly. Electronic trading is obviously a major part of the solution to the problem and I expect that the Internet will also have a major impact.

In developing OptiMark, we felt, after inventing the concept and recognizing the product's potential power, that OptiMark should not be another fragmenter. Rather, we wanted everybody to benefit from a somewhat centralized source of liquidity, not in

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[32] The Plexus Group is a consulting firm that provides trading analysis for institutional investors. *See* Plexus Group Company Profile (visited Nov. 28, 1998) <http://www.plexusgroup.com/profile.html>.

[33] *See Commentary #54, The Official Icebergs of Transactional Costs* (visited Nov. 28, 1998) <http://www.plexusgroup.com/54txt.html> (Indicating that the average cost of trading a large cap stock is 1.01%).

[34] *See id.* (Indicating that the average cost of trading a small cap stock is 4.49%).

physical space but at least in electronic cyberspace. That is why we approached exchanges and SROs.

Our overall objective is to reduce market impact cost. To do this, we had to increase liquidity and reduce the dissemination to the market of order information that the customer does not wish to disclose. Eric Sirri, the Chief Economist at the SEC, described the protection of a customer's order information as a customer's proprietary right. In other words, if an institutional investor does not wish to divulge to the market that he wants to buy three or four million shares of a security, that information should not be disclosed. That information belongs to the institutional investor and should not be arbitrarily taken away from him.[35]

How does OptiMark work? OptiMark has matching and optimization algorithms that generate optimal matches. First, OptiMark performs an exhaustive search of all possible trades. Then, it ranks the trades in a manner that will produce optimal matches.[36]

The algorithm is deterministic, which means that it is repeatable. The same set of orders will produce the same set of answers every time, which is good from the standpoint of fairness. The algorithm can also produce an exhaustive audit trail that regulators may use to recreate how and why a trade took place.

The actual matching process has two phases. First, OptiMark aggregates all of the smaller buyers or sellers against a large institutional buyer or seller and comes up with an optimal price. It reports that price either in the Nasdaq or in the listed market. Next, OptiMark "negotiates," meaning it analyzes the trade under all scenarios that then

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[35] PCX Application of the OptiMark System, 62 Fed. Reg. 50,036, 50,038-39 (1997) (describing the central processing the OptiMark system performs as based on a computer algorithm designed to measure and rank all possible trades by matching individual coordinates from order profiles).

exist in the market. It then does an optimization of all possible trades and proceeds to execute until all trades are completed.

OptiMark would not have been possible five to ten years ago because technology could neither support the complexity of the algorithms nor provide sufficient response time to create a real-time environment. An algorithm to determine an optimal match for one security requires one to five billion calculations. Real-time environment is achieved by a response time of one to two seconds. To service the entire market, supercomputer technology is required, which fortunately is available today. This technology is not cheap, but it is reasonable, and it can give an answer in real time.

Now, what are the benefits to the industry? OptiMark is a structural improvement to the process of matching buyers and sellers. It will release previously withheld liquidity back to the institutional buy-side trading desk, the sell-side trading desk, the floor trader, or even the specialist's book. Greater liquidity benefits all parties, particularly market makers. As a former market maker, I can tell you that it is best to make markets in stocks that have high liquidity. Mistakes in an illiquid market may be difficult and exceedingly expensive to correct, while mistakes in a liquid market are fairly inexpensive to correct.

In addition, OptiMark will reduce some of the volatility in the market. Volatility is good to a point, but after that point it frightens market participants with the market uncertainty it creates, especially concerning liquidity. Less volatility reduces the likelihood of uncertainty in the market.

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[36] *Id.* at 50,042 (stating the industry's view that a major problem institutions face today is attempting to keep their decisions to buy or sell securities confidential).

OptiMark also provides a level playing field. It will integrate everything from 100 share orders to multiple-million-share orders, and all market participants will receive the same treatment.

Finally, OptiMark will reduce the market risk for principal capital because market makers will be able to reliquefy more often and will be able to find each other without the current risks in the market. Market makers will also be able to interact with all buyers and sellers thus increasing their chance to reliquefy.

There will be many changes in the business over the next five years. The industry seems to be in shock because of some of the rapid changes that have occurred. The SEC does not realize how hard it is for the industry to react to the demands, both from the systems standpoint and the cultural standpoint. They need to understand what it is like to be in the trenches, trying to adjust to these things at the rapid pace at which we are required to respond. Change is inevitable; the industry must be ready to face the challenge.

PETER MADOFF:[37]

The market is undergoing many changes. The National Association of Securities Dealers, Inc. ("NASD") and the Securities Industry Association ("SIA") are reviewing detailed proposals to foster and refine these changes. In my discussion I will first comment on the Order Audit Trail System ("OATS")[38] and then review part of the SIA and NASD's proposal for Next Nasdaq.[39]

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[37] Senior Managing Director, Madoff Investments. He is the Past Vice Chairman of the NASD Board of Governors. In the past he was the President of the Security Traders Association of New York and Chairman of the District 10 Business Conduct Committee.

[38] Self-Regulatory Organizations; Order Approving Proposed Rule Change and Amendment No. 1 Thereto and Notice of Filing and Order Granting Accelerated Approval to Amendment Nos. 2, 3, 4, 5, and 6 to Proposed Rule Change by the National Association of Securities Dealers, Inc., To Amend Rule 3110 and to Adopt New Rules 6950 Through 6957 Relating to the Creation of an Order Audit Trail System, 63

The conversion to OATS will be an integral part of the NASD's ongoing regulatory and best execution responsibilities. OATS will directly impact all participants in the market-making and order-entry areas of the industry. It will also impact market technology including trading system functions.

OATS' primary purpose is to create an audit trail for all types of market orders. [40] After arduous negotiations, the NASD, the SIA, and the SEC have made the specific reporting requirements to be followed available to the industry.[41] To satisfy the requirements of the new system, market participants must understand the system's definition of an order.[42] Quite often, order communications involve vague terms leaving one or both participants uncertain about whether an offer had been made. Thus, a participant may unknowingly fail to comply with the new system's requirements.

Fed. Reg. 12,559 (1998); *see Order Audit Trail System: A Look At NASD's New Guidelines*, SEC. INDUS. NEWS, Sept. 1, 1997, at 2; *SIA Seeks More Time For Audit Trail Start*, SEC. WK., Oct. 13, 1997, at 1 [hereinafter *SIA Seeks More Time*] (explaining that OATS is a new measure designed to provide the NASD with an accurate, time-sequenced record of orders and transactions).

[39] Next Nasdaq is a proposed new trading system that would replace the NASD's current two separate systems, SOES and SelectNet, with a single system. *See* Marcia Vickers, *Madoffs Concerned About Next Nasdaq*, ON WALL STREET, May 1, 1998, at 1.

[40] *See In re National Association of Securities Dealers, Inc.*, Exchange Act Release No. 34-37538, August 8, 1996, Admin. Proceeding File No. 3-9056, at 7-8 (directing that OATS provide an accurate, time-sequenced record of orders and transactions from receipt of an order through its execution), *cited in* Self-Regulatory Organizations; Notice of Filing and Order Granting Accelerated Approval of Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to Nasdaq's Automated Confirmation Transaction Service, 63 Fed. Reg. 50,272, 50,272 (1998).

[41] *See* Mark Hendrickson, *SIA Seeks OATS Compromise With NASD, SEC*, SEC. INDUS. NEWS, Jan. 26, 1998, at 4 (reporting that NASD, SIA and SEC [officials] are hopeful that a compromise will be reached with regard to the implementation of OATS); Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Approving Rule Change Relating to NASD's Order Audit Trail System and Recordkeeping Rules, 63 Fed. Reg. 42,088, 42,089 (1998) [hereinafter Recordkeeping Rules] (amending original NASD Rule 6954 to detail reporting requirements for member orders transmitted to non-members).

[42] Recordkeeping Rules, 63 Fed. Reg. 42,088, 42,090 (noting that definition of an "order", as set forth in OATS Rule 6951(j), is "any oral, written or electronic instruction to effect a transaction in a Nasdaq Stock Market equity security that is received by a member from another person for handling or execution, or that is originated by a department of a member for execution by the same or another member, other than any such instruction to effect a proprietary transaction originated by a trading desk in the ordinary course of a member's market making activities.").

Once a market participant determines an order has been communicated, it must be reported to OATS.[43] This requirement will have a significant impact on small firms that cannot build systems and practices needed to comply with OATS. Many of the small firms will become disclosed correspondents of larger firms that already possess the necessary reporting infrastructure.[44] As a result, large clearing firms will enjoy a windfall.[45] Unfortunately, the industry has not paid enough attention to this potential consequence of the OATS conversion.

OATS will be implemented by a series of NASD and SEC rules.[46] The implementation of OATS will begin on August 7, 1998 when all computer system clocks must be synchronized.[47] On March 1, 1999 all market makers and ECNs who receive electronic orders will be required to report to OATS.[48] On July 1, 1999, all mechanical clocks must be synchronized.[49] Beginning August 1, 1999, all electronic orders entered will be synchronized, time-stamped and reported to the NASD. The final phase will occur on July 31, 2000 after the millennium bug is eliminated. All other manual orders,

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[43] *Id.* at 42,089 (stating that by March 1, 2000, all orders will be subject to reporting).

[44] *See SIA Seeks More Time*, *supra* note 38 (explaining that firms without the order flow to justify creation of an automatic system will be forced to rely on service bureaus or clearing firms).

[45] *Id.* (explaining that clearing firms will likely enjoy a competitive advantage because of their ability to provide "one-stop shopping" for their correspondents).

[46] *See* Vickers, *supra* note 39.

[47] *See* Randall S. Devere, *As OATS Approaches Does Anybody Really Know What Time Its Is?*, SEC. INDUS. NEWS, June 1, 1988, at 2 (reporting that the synchronization of computer systems and mechanical clocks is necessary with the implementation of OATS); Recordkeeping Rules, 63 Fed. Reg. 42,088, 42,089 (1998) (noting that the OATS Rules previously approved by the SEC require NASD member firms to synchronize their business clocks to one time source).

[48] *See* Mark Hendrickson, *SEC Close to Saying Yes to Scaled-Back OATS Plan*, SEC. INDUS. NEWS, Mar. 9, 1998, at 5 (reporting that the initial phase-in date would apply only to ECNs and market-makers that receive and record orders electronically, and non-electric orders would be phased in by the summer of 2000); Recordkeeping Rules, 63 Fed. Reg. 42,088, 42,089 (1998).

[49] *See* Mark Hendrickson, *NASD Issues Technical Specs for OATS After SEC OK*, SEC. INDUS. NEWS, Mar. 16, 1998, at 5 (discussing the SEC's delay of implementation dates for OATS).

including orders received by phone, will be covered.[50] This timetable will force industry participants to make important technology and business decisions.

NASD's Next Nasdaq proposal addresses a number of important objectives.[51] Among these objectives is the integration of Nasdaq's Small Order Execution System ("SOES") and Nasdaq's SelectNet,[52] as well as the immediacy of order execution and open systems access for broker dealer sponsored institutions.[53] This broad proposal has widespread support in the industry and in the SIA.[54] However, controversy exists over the proposed changes to the limit order book presently maintained by the market makers.[55] The NASD has proposed that the market makers no longer handle non-directed limit orders entered into the NASD's system.[56]

It is important to understand the three component rationales for the NASD's limit order book. First, there should be universal access to the NASD's system.[57] Second, the NASD should assure the integrity of participant anonymity.[58] Third, the system should

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[50] *See id.*

[51] *See Report Indicates NASD Trying to Preserve Market Maker Privileges in Next Nasdaq Rule Proposal*, SEC. WK., Nov. 3, 1997, at 1 [hereinafter *Next Nasdaq Rule Proposal*] (discussing NASD's plans for Next Nasdaq).

[52] *See* Vickers, supra note 39.

[53] *See id.*

[54] *See* Mark Hendrickson, *SEC's Lindsey Commends NASD Progress After Censure*, SEC. INDUS. NEWS, June 8, 1998, at 6 (reporting that the SEC approves the creation of Next Nasdaq and the implementation of Nasdaq Technologies).

[55] *See* Vickers, *supra* note 39 (stating that market-makers oppose a Nasdaq-controlled centralized repository for displaying customer orders). Market-makers currently maintain their own individual order-display terminals. *See NASD Takes Next Nasdaq on the Road*, WALL ST. LETTER, Mar. 9, 1998, at 1. Market-makers object to the idea of a regulatory body maintaining control over anonymous customer orders. *Id.*

[56] *See Next Nasdaq Rule Proposal*, *supra* note 51.

[57] Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Granting Partial Approval and Notice of Filing and Order Granting Accelerated Approval Amendment No. 1 to Proposed Rule Change Relating to Implementation of the Commission's Order Handling Rules, 62 Fed. Reg. 2415, 2418 (1997) [hereinafter Commission's Order Handling Rules].

[58] Integrated Order Delivery and Execution System, 63 Fed. Reg. 15,471, 15,471 (1998) (stating that the Limit Order Book proposed by the NASD would allow for anonymity). Anonymity of the party entering an order is important to institutional investors because it can reduce market impact costs that may affect institutions' ability to obtain low-cost executions. *Id.*

be established for order entry of last resort. Thus, if market makers choose to withdraw from their market-making activities, the system must provide a mechanism to integrate and display all orders.[59] Finally, there should be a Nasdaq alternative for placing limit orders rather than relying on an ECN.[60]

The NASD's objectives could be achieved in a different manner through a proposal developed by the SIA's Trading Committee (the "Committee").[61] The Committee unanimously endorsed a proposal that will achieve the NASD's objectives and continue to allow market makers to participate in Nasdaq.[62] This proposal recognizes that to preserve marketplace integrity, market makers should provide short-term transitional liquidity.[63] On the other hand, the new system's treatment of non-directed limit orders should cause other market participants to receive the new system positively.

The SIA proposed that non-directed limit orders should be forwarded to market makers on a voluntary rotational basis.[64] The market makers would have to immediately accept the order.[65] Upon acceptance, market makers must either execute the order or display it in their quotations. Moreover, the market maker must treat the order as if the

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[59] Commission's Order Handling Rules, 62 Fed. Reg. 2415, 2418 (1997) (noting that the NASD has proposed to allow SOES market-makers to enter agency orders into SOES, ensuring that a customer's order has access to a better-priced customer limit order displayed in a market maker's quote regardless of whether the customer's broker-dealer is a SOES market-maker).

[60] *Id.* at 2415 (stating that to meet its obligations to the Quote Rule, a market-maker has the option of either changing its quote or giving the better priced order to an ECN).

[61] The committee monitors regulating developments affecting trading and seeks to help shape them via comment letters and meetings with regulators. *See* SIA Trading Committee (visited Nov. 25, 1998) <http://www.sia.com/about_sia/html/trading.html>. The committee is composed of industry executives from around the country. *Id.*

[62] *See* Deborah Lohse, *NASD Proposals On Nasdaq Orders Draw Criticism,* WALL ST. J., Mar. 4, 1998, at C11 (stating that the SIA's plan would let customers send their orders anonymously to Nasdaq, but then have Nasdaq send those orders to market-makers to display and execute them).

[63] *See id.* (noting that the SIA's proposal would allow customers automatically to access all shares in a given market-maker order rather than imposing a waiting period and only limited automatic execution of orders).

[64] *See id.*

order had been directly placed with him.[66] Conversely, if an order is rejected, the order immediately defaults to the NASD book.[67] This allows the market makers to have the first opportunity to interact with this order flow. Thus, market makers' credibility depends upon their own activity.

The NASD would monitor the activity through OATS. OATS will track the order's entry, the order's display, and the integrity of the anonymity employed. The market maker is obliged to place the order under all of the protections and guarantees of the SEC's order handling rules, in addition to having the fiduciary responsibility incumbent upon all market makers. An order would go to the NASD book only in the absence of a market-maker sponsor.[68] The SIA's proposal validates the market maker's participation in the marketplace on a regular and continuous basis.[69]

The SIA's proposal addresses three other concerns. First, the industry is concerned that the public would see the proposed NASD system as a regulatory safe harbor under the OHR. Without a reliable alternative, everyone might opt for this safe harbor. If that happens, both limit orders and market limit orders would be accessible only through this proposed system. From a technological standpoint, few systems distinguish between immediately marketable and resting limit orders.[70] The gravity of the opt-out scenario is significantly magnified by this fact alone.

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[65] *See Instinet, SIA Blast Next Nasdaq Order Book Plan*, WALL ST. LETTER, May 18, 1998, at 1 (noting that according to the SIA's proposal, the market-makers in the rotation would be required to execute orders).

[66] *See id.* (noting that the market-maker's role would be essentially that of an exchange specialist).

[67] *See Next Nasdaq Rule Proposal, supra* note 51 (reporting that NASD will allow principals to enter non-directed orders into Next Nasdaq, while allowing directed orders to be sent to a specific market-maker without their interacting with other orders).

[68] *See id.*

[69] *See id.*

[70] Commission's Order Handling Rules, 62 Fed. Reg. 2415, 2417 (1997).

Secondly, the SIA proposal would not include order execution delays.[71] The Committee unanimously felt that immediacy was the key to market integrity. The SIA does not encourage the proposed seventeen second or thirty-two second delay.[72] It is also vital that orders be technologically guaranteed. Customers might think that the possibility for delay in the system would prevent accurate pricing of executions. Therefore, the SIA's proposal calls for no delays.

Finally, the SIA has proposed a trade-through rule.[73] Nasdaq has fostered the integrity of the quote. The SIA has suggested that the NASD further this integrity by implementing market-wide trade-through rules applicable to all broker-dealers in environments they choose to execute.

The broker-dealer, as a fiduciary, should be mandated by NASD rules to honor all displayed quotations in their entirety. The NASD's mechanism for an automatic execution would facilitate that rule. The mechanism would support implementation by not allowing any trading through a better-priced order.[74] An order could trade at the same price, but would not trade through a better-priced order without satisfying all displayed quotations on that trade report.[75]

This proposal ensures the integrity and fairness of the marketplace. It will force participants to display their interest, or to run the risk of having to protect orders they

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[71] *See* Lohse, *supra* Note 62, at C11 (stating that SIA's proposal provides for automatic order execution without NASD's seventeen second waiting period).

[72] *See id.*

[73] *See MSDW, BSE Sound Off On Next Nasdaq*, WALL ST. LETTER, June 1, 1998, at 6 (reporting that both Morgan Stanley Dean Witter and the Boston Stock Exchange urged the NASD in separate letters to include a trade-through provision in Next Nasdaq that would allow orders in certain Nasdaq securities to be executed at better prices on regional exchanges).

[74] *See SIA, Rebuffed by NASD, Taking Next Nasdaq Gripes to SEC*, WALL ST. LETTER, Mar. 16, 1998, at 4 (stating that the trade-through rule prohibits limit order executions at prices other than the best bid or offer in the limit book).

[75] *See id.*

chose not to display. It would further encourage customers to display their orders. Without a trade-through rule, all of these other initiatives to build and encourage the integrity of the marketplace would be diminished.[76] Therefore, it is incumbent upon the NASD to include a trade-through rule in its final proposal.[77]

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[76] *See id.*
[77] *See id.*