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96 CIV. 5313

UNITED STATES DISTRICT COURT FOR
THE SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,

PLAINTIFF,

v.

ALEX. BROWN & SONS INC.; BEAR, STEARNS & CO. INC.; CS FIRST BOSTON CORP.; DEAN WITTER REYNOLDS INC.; DONALDSON, LUFKIN & JENRETTE SECURITIES CORP.; FURMAN SELZ LLC; GOLDMAN, SACHS & CO.; HAMBRECHT & QUIST LLC; HERZOG, HEINE, GEDULD, INC.; J.P. MORGAN SECURITIES, INC.; LEHMAN BROTHERS, INC.; MAYER & SCHWEITZER INC.; MERRILL LYNCH, PIERCE, FENNER & SMITH, INC.; MORGAN STANLEY & CO., INC.; NASH, WEISS & CO.; OLDE DISCOUNT CORP.; PAINEWEBBER INC.; PIPER JAFFRAY INC.; PRUDENTIAL SECURITIES INC.; SALOMON BROTHERS INC.; SHERWOOD SECURITIES CORP.; SMITH BARNEY INC.; SPEAR, LEEDS & KELLOGG, LP; and UBS SECURITIES, LLC.

DEFENDANTS.

Civil Action No.

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COMPETITIVE IMPACT STATEMENT

Pursuant to Section 2(b) of the Antitrust Procedures and Penalties Act ("APPA" or "Tunney Act"), 15 U.S.C. § 16(b)-(h),

the United States submits this Competitive Impact Statement relating to the proposed Stipulation and Order submitted for entry with the consent of defendants in this civil antitrust proceeding.

I.

NATURE AND PURPOSE OF THE PROCEEDING

On July 17, 1996, the United States filed a Complaint alleging that the defendants have engaged in price fixing in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1. On the same day, the United States and the defendants filed a Stipulation and Order ("proposed Order") to resolve the allegations in the Complaint. Entry of the proposed Order is subject to the APPA.

The defendants are all major "market makers" in over-the-counter ("OTC") stocks quoted for public trading on the computerized stock quotation system known as Nasdaq.[1] The United States alleges in its Complaint that the defendants and others adhered to and enforced a "quoting convention" that was designed to and did deter price competition among the defendants and other market makers in their trading of Nasdaq stocks with the general public. The United States believes that investors

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[1] The term "Nasdaq" was originally an acronym for the "National Association of Securities Dealers Automated Quotation System." The automated quotation system is now operated by The Nasdaq Stock Market, Inc.

have incurred higher transaction costs for buying and selling Nasdaq stocks than they would have incurred had the defendants not restrained competition through their illegal agreement.

The proposed Order will eliminate the anticompetitive conduct identified in the Complaint and establish procedures that will ensure that such conduct does not recur. Specifically, the proposed Order prevents the defendants from agreeing with other market makers to adhere to the quoting convention, or to fix, raise, lower, or maintain prices or quotes for Nasdaq securities. The proposed Order also requires each defendant to adopt an antitrust compliance program and designate an antitrust compliance officer to ensure the firm's future compliance with the antitrust laws. To this end, the proposed Order requires the compliance officer to (1) randomly monitor and tape record telephone conversations between stock traders and (2) report any violations of the proposed Order within ten business days to the Antitrust Division of the Department of Justice ("the Department").

The proposed Order also requires that these tape recordings be made available to the Department for its review. The proposed Order gives the Department authority to receive complaints of possible violations, to visit defendants' offices unannounced to monitor trader conversations as they are ongoing, to direct taping of particular suspected violators, and to request copies of tapes as they are made. The Court may punish violations of

its proposed Order with civil or criminal contempt, including fines and incarceration for willful flouting of the Court's order. See, e.g., United States v. Schine, 260 F.2d 552 (2d Cir. 1958), cert. denied, 358 U.S. 934 (1959), and 18 U.S.C. § 401.

The United States and the defendants have agreed that the proposed Order may be entered after compliance with the APPA, provided that the United States has not withdrawn its consent to entry of the proposed Order. The proposed Order provides (as is standard in the Department's settlements) that its entry does not constitute any evidence against or admission by any party with respect to any issue of fact or law. Entry of the proposed Order will terminate this civil action as to the defendants, except that the Court will retain jurisdiction for further proceedings that may be required to enforce or modify the order entered, or to punish violations of any of its provisions.

II.

THE DEPARTMENT'S INVESTIGATION

The Complaint and proposed Order are the culmination of a major, two-year investigation by the Department of the trading activities of Nasdaq securities dealers. The Department's investigation began in the summer of 1994, shortly after the public disclosure of an economic study by Professors William Christie of Vanderbilt University and Paul Schultz of Ohio State University (the "Christie/Schultz study"). The Christie/Schultz

study suggested that securities dealers on Nasdaq may have tacitly colluded to avoid odd-eighth price quotations on a substantial number of Nasdaq stocks, including some of the best known and most actively traded issues, such as Microsoft Corp., Amgen, Apple Computers, Inc., Intel Corp., and Cisco Systems, Inc. After the Christie/Schultz study had received wide-spread publicity, and shortly before the Department opened its investigation, several class action lawsuits alleging antitrust violations were filed against the defendants and other Nasdaq market makers.[2]

During the course of its investigation, the Department has reviewed thousands of pages of documents that were produced by the defendants and other market participants in response to over 350 Civil Investigative Demands ("CIDs") issued by the Department. The Department has reviewed hundreds of responses to interrogatories that were submitted by the defendants (and others). The Department has taken over 225 depositions of individuals with knowledge of the trading practices of Nasdaq market makers, including current and former officers and employees of the defendants and other Nasdaq market makers, as well as officials and committee members of the National Association of Securities Dealers, Inc. ("NASD"), the organization responsible for oversight of the Nasdaq market.

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[2] All of the private cases have been consolidated and assigned to Judge Robert W. Sweet in the Southern District of New York, M.D.L. 1023.

The Department conducted numerous telephone and in-person interviews of current and former Nasdaq stock traders, Nasdaq investors, and others with relevant knowledge of the industry, and listened to approximately 4500 hours of audio tapes of telephone calls between stock traders employed by the defendants and other Nasdaq market makers. These audio tapes had been recorded by certain of the defendants (and other market makers) in the ordinary course of their business and were produced to the Department in response to its CIDs.

The Department has reviewed and analyzed substantial quantities of market data produced in computer-readable format by the NASD. These data include data showing all market maker quote changes on Nasdaq during a twenty-month period between December 1993 and July 1995, and for selected months thereafter, including March 1996. The Department also reviewed eighteen months of data on trades in Nasdaq stocks. Finally, the Department reviewed numerous transcripts of depositions taken by the Securities and Exchange Commission ("SEC") in a concurrent inquiry into the operations and activities of the NASD and the Nasdaq market since the fall of 1994.

Based on the evidence uncovered during this substantial investigative effort, the Department concluded that the defendants and others had been engaged for a number of years in anticompetitive conduct in violation of the Sherman Act, as is now alleged in the Complaint. The next section of this Statement

will summarize the evidence that the United States believes supports the specific allegations in its Complaint.

III.

SUMMARY OF EVIDENCE IN SUPPORT OF COMPLAINT

A. The Nasdaq Market

Nasdaq is a computerized public market in which investors buy and sell OTC stocks. It is the second largest securities market in the United States. Nasdaq is a "dealer market." In a dealer market, a number of securities dealers "make markets" in the same stock. To "make a market," securities dealers -- or market makers as they are known -- quote a price at which they are willing to buy a particular stock, and simultaneously quote another higher price at which they are willing to sell that same stock. The market makers on the Nasdaq "dealer market" are supposed to provide the investing public with "immediacy" or "liquidity" *in competition* with each other.[3] Thus, in

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[3] Various other forms of public stock markets have arisen in the United States and elsewhere to provide the service of bringing together investor orders to buy and sell. The most commonly recognized form of organized stock market in the United States is the so-called "auction market," such as the New York Stock Exchange or the American Stock Exchange. The auction market systems provide "immediacy" to the investing public by bringing all of the buy and sell orders for the stocks together on the "floor" of the exchange for execution. For each stock so traded on an exchange, the exchange designates a "specialist." The job of the specialist is to match the public's buy and sell orders, and to the extent that there is an imbalance in those orders, the specialist is supposed to use his own capital to ensure that the market clears in an "orderly" fashion. The exchange specialist is by design a monopolist, and his role is

principle, the orders of the investing public are supposed to be able to find the best available prices to buy or sell from many different market makers, who are supposed to be using their competing prices to attract those orders. To the extent that these market makers do not compete in this fashion, the investing public is disadvantaged.[4]

1. <u>Dealer Quotes and the Dealer Spread</u>.

Nasdaq market makers publicize the prices at which they are willing to buy or sell a stock by entering those "quotes" for display on the Nasdaq computerized quotation system. The price at which a market maker is willing to buy a security is called its "bid" or "bid price." The price at which a market maker is willing to sell a security is called its "ask" or "ask price" (or its "offer" or "offer price"). Each market maker must simultaneously quote both a bid and an offer price. The difference between an individual market maker's bid price and its offer price in a specific security is known as its "dealer spread." Thus, for example, if a market maker's bid price in a stock (the price it is willing to pay to buy stock from a customer or another market maker) is $20 and its offer price (the price at which it is willing to sell stock to a customer or

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heavily regulated.

[4] Not all market makers make markets in the same stocks. There are currently over 4000 stocks in the Nasdaq National Market System ("NMS"), and almost 2000 stocks in the Nasdaq Small Cap Market. The defendants trade many of the larger Nasdaq issues in common with one another.

another market maker) is $20-3/4, the market maker has a dealer spread *in that stock* of 3/4 point (75 cents per share).

2. Inside Quotes and the Inside Spread.

In the case of each Nasdaq stock, there are at least two market makers. On average, there are between ten and twelve market makers in each Nasdaq NMS stock, although the number of market makers in specific stocks varies widely. The Nasdaq computer screen collects and displays the bid and offer prices of all the market makers in each stock. The highest bid and the lowest offer from among the quotes of all the market makers in a stock are called the "inside bid" and the "inside ask," or the "inside quotes." The difference between the inside bid and the inside ask in a stock is called the "inside spread." Thus, for example, if there are three market makers in a stock displaying the following bid and ask prices --

	Bid		Ask
Market Maker No. 1:	19-1/2	-	20-1/4
Market Maker No. 2:	19-3/4	-	20-1/2
Market Maker No. 3:	20	-	20-3/4

-- the inside spread in the stock would be 1/4 (25 cents), based upon the difference between Market Maker No. 3's high bid of 20 and Market Maker No. 1's low offer of 20-1/4.

As a general rule, market makers at any given point in time have a greater interest in buying than in selling a security, or *vice versa*. Market makers may reflect that interest in the

quotes they post on Nasdaq. Market makers with a greater buying interest may, and often do, display a higher bid; market makers with a greater selling interest may, and often do, display a lower offer. It is extremely unusual to see a single market maker on both sides of the inside spread.[5]

3. **The Importance of the Inside Spread.**

Market makers trade as principals with other market makers and also fill customer orders. Customer orders can be from retail brokers who route orders from investors seeking to buy (or sell) a small quantity of Nasdaq stock -- referred to as "retail customers" -- or from a large institutional investor such as a mutual or pension fund seeking to buy (or sell) many thousands of shares of Nasdaq stock. If a customer does not limit or specify the price it will pay to buy (or accept to sell) a stock, which is the case of most orders received from retail customers, the order is called a "market order."

In executing a market order on behalf of a retail customer, market makers historically bought from the customer at the inside bid, and sold to the customer at the inside ask. This execution by the market maker satisfied the retail broker's obligation of "best execution" for the retail customers. For retail customers,

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[5] The inside spread in a stock is not always constant. Instead, as market makers display different bid and ask quotes, it may vary -- possibly, for example, beginning at 1/8, widening to 1/4, then to 3/8, narrowing to 1/4 again and then back to 1/8.

the inside Nasdaq quote is the price at which most retail transactions with market makers in fact occurred.

Market makers' compensation is in large part derived from the spread -- the difference between the price at which the market makers can buy and, in turn, sell the stock in question. Thus, when the inside spread is wider, the market maker receives more compensation, and the retail customer pays a higher price, for the market maker's services.

The width of the inside spread also affects institutional trades. While large institutional customers may be able to negotiate prices that are better than the inside spread, the inside spread influences many of the negotiations between the market maker and its institutional customers.

Market makers thus have a significant interest in each others' price quotes because those quotes can either set each others' actual transaction prices or significantly affect those prices. This creates an incentive for market makers to discourage bid and ask price competition that may have the effect of narrowing the inside spread. The evidence obtained during the Division's investigation shows that the market makers have discouraged competition, to great effect, through the adoption and enforcement of the quoting convention, as is discussed below.

B. The Quoting Convention.

The Department's investigation uncovered the existence of a long-standing, essentially market-wide commitment among market

makers to adhere to a two-part "quoting convention" that dictates the price increments a market maker can use to adjust or "update" bid and ask price quotes on the Nasdaq system. Under the first part of the quoting convention, if a market maker's dealer spread in a stock is 3/4 point (75 cents) or wider, the market maker is required to quote its bid and ask prices in even-eighth increments (*e.g.*, 1/4 (25 cents), 1/2 (50 cents), 3/4 (75 cents) or 4/4 ($1).[6] This ensures that the inside spread in those stocks is maintained at 1/4 point (25 cents), or greater.[7]

Under the second part of the quoting convention, market makers can quote bid and ask prices on Nasdaq in odd-eighth increments, *e.g.*, 1/8 (12.5 cents), 3/8 (37.5 cents), 5/8 (62.5 cents) or 7/8 (87.5 cents), only if they have a dealer spread of less than 3/4 point. This requirement has deterred market makers from quoting bid and ask prices in odd-eighth increments because a narrower dealer spread is likely to create a greater economic risk to the market maker in trading that stock. When the difference between a market maker's bid and ask quotes is 1/2

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[6] All Nasdaq stocks may be quoted in 1/8 point increments.

[7] That the use of only even-eighths will result in a minimum inside spread of no less than 1/4 point can be shown simply. If market makers always move in quarter-point increments, and all initiate their bid and ask quotes on even-eighths, all odd-eighth quotes will have been eliminated from the number set. The set of numbers remaining -- whole numbers, 1/4, 1/2, and 3/4 -- would be the only numbers on which market maker quotes could fall. Hence, the difference between those even numbers would also be an even number, meaning the inside spread could not narrow to less than 1/4 point.

rather than 3/4, a market maker may be called upon to buy (or sell) more stock than the trader wants, or buy stock when the market maker wants to sell (or *vice versa*).

The fact that the quoting convention has existed for at least three decades in the OTC and Nasdaq markets was well-known throughout the industry, and fully described to the Department by a number of traders at prominent firms during the Department's investigation. These traders testified that they were taught to follow the convention, that they in fact followed it, and that they understood and expected traders at other firms to follow it as well. The following deposition excerpts are examples of the testimony on this subject obtained by the Department and the SEC during their investigations, from a variety of deponents. As one trader testified:

> Q. If -- if the firm spread in a particular stock is three-quarter-point or greater, the -- when -- when the firm moves its quote, it will move in increments of at least a quarter; is that right?
> A. That's correct; in quarters, plural. So either one -- you either move it up a quarter or up a half. You would not move it up three-eighths or five-eighths or anything.
> Q. Right. And that -- that's one convention.
> A. That's correct.
> Q. And another convention is that if the stock -- if the firm spread in a stock is one half or less, the -- the increment of movement of quotes would be in increments of an eighth.
> A. That's correct.
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> * * * * * * *
>
> Q. -- generally speaking, these conventions have been understood and followed by market makers in the Nasdaq market; is that right?
> A. Yes, to my knowledge.

Another trader described the convention as an "historical relationship" between dealer spreads and the size of quote increments:

> Q Let's come back to that in a little while. *Is there a relationship between the width of the spread and the increment by which quotes are made?*
> A *Yes, there is a historical relationship. The width of the spread of a dealer and how quotes are made.*
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> * * * * * * *
>
> Q *What's the historical relationship that you're talking about?*
> A *That dealer spreads of a half a point historically trade in 1/8 of a point increment, and dealer spreads of 3/4 of a point and higher historically have traded for 1/4 of a point increment.*

Another trader confirmed the operation of the quoting convention and its lengthy duration:

> Q And in terms of dealer spreads that were three-quarters, when the dealer spread was three-quarters, market makers moved in quarter point increments for a large number of years. Is that correct?
> A *Traditionally, if your spread was three-quarters of a point or more, uh, you moved your market in quarter point increments.*
> Q *And that was because it was unprofessional to move in eighths without closing the dealer spread to a half; is that correct?*
> A *Yes, ma'am.*
>
> * * * * * * *
>
> [A] And if the stock trades with a . . . you think you'll have to trade with a *three-quarter point spread. Then you should be moving your quotation in quarter point* increments. *And it's one of those things I can't really tell you why. It's something that I think all of us have been doing for a gazillion, G-A-Z-I-L-L-I-O-N years, certainly for 30 years, and it has everything to do with the professional appearance of that, that marketplace.*

The evidence adduced by the Department does not disclose the origin of the quoting convention. No deponent was found who could testify as to how or precisely when the quoting convention began, although numerous witnesses testified that the Nasdaq market had operated under this "tradition," or "practice," or "convention" for many years. There is no evidence that the quoting convention was the result of an express agreement reached among all of the market makers in a smoke-filled room. Nevertheless, there is substantial evidence that this quoting convention -- however it arose -- distilled or hardened over time into the very type of "agreement" condemned by the Sherman Act -- a "conscious commitment to a common scheme designed to achieve an unlawful objective," which has restrained price competition among the defendants and others in the Nasdaq market. See Monsanto Co. v. Spray-Rite Serv. Corp. 465 U.S. 752, 764 (1984).

Additional evidence of agreement to adhere to the quoting convention, alleged in the complaint and summarized briefly below, includes: (1) market data demonstrating that defendants' price quoting behavior was remarkably and unnaturally parallel, and in conformance with the quoting convention; (2) evidence showing that the quoting convention was vigorously enforced through industry-wide peer pressure, and intimidating telephone calls to, and refusals to deal with, market makers who did not quote bid and ask prices in conformance with the convention; (3) evidence that it was not in the economic self-interest of market

makers to rigidly adhere to the quoting convention to the degree they did, absent the understanding that all other market makers would comply; (4) market data showing that market makers began to change their price quoting practices when confronted by the adverse publicity from the Christie/Schultz study and the increasing pressures from the government investigations; and (5) market data showing that market makers used an electronic trading system known as Instinet on which to quote and trade, at odd-eighth prices, the same Nasdaq stocks that they quoted only in even-eighths on the Nasdaq system.

The evidence addressed in each of these points is of the type that courts have found sufficient to establish an agreement in violation of Section 1 of the Sherman Act, as is discussed briefly below.

C. Defendants' Adherence to the Convention is Confirmed by Market Data.

Until confronted by the adverse publicity from the Christie/Schultz study and the increasing pressure from government investigations, the defendants routinely, and with rare exceptions, adhered to the quoting convention. As a result, their price quoting behavior was remarkably and unnaturally parallel. Despite the hundreds of thousands of bid and ask prices that were quoted by the defendants (and other market makers) on the Nasdaq system, very few odd-eighth prices were entered in stocks in which defendants' dealer spreads were 3/4 point or wider. When defendants entered odd-eighth quotes in

these stocks, those quotes were largely mistaken entries -- usually of short duration, and promptly corrected.

The market data analyzed by the Department during its investigation show this adherence to the quoting convention. The Department based its analysis on the NASD's Market Maker Price Movement Reports ("MMPMRs"), which contain detailed information regarding the price quotes by market makers for all Nasdaq stocks, and the NASD's Equity Audit Trail Report, showing all trades by all market makers in all stocks. The Department received from the NASD monthly MMPMR data for the period December 1993 through July 1995, plus September and December 1995 and March 1996. To create a manageable subset of these data, the Department used the Equity Audit Trail to calculate the volume, in dollar terms, for all Nasdaq stocks for the eighteen months from February 1994 through July 1995. From these calculations, the Department selected the 250 stocks with the largest dollar volume of transactions for these eighteen months. Twenty-six stocks were excluded from this sample,[8] resulting in the final data set of 224 of the top-dollar volume Nasdaq stocks during the defined time period.

An analysis of quotes in the 224 stock sample shows the dramatic extent to which the defendants avoided odd-eighth quotes in Nasdaq stocks. As shown in Exhibit A, in early 1994, fully

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[8] The twenty-six excluded stocks were all priced at less than $10, and, as a result, could be quoted in "sixteenths" (1/16 point increments) on Nasdaq.

65-70% of the sample, had virtually no odd-eighth bid and ask price quotes.[9] Exhibit B illustrates that the defendants achieved this unexpected result by systematically avoiding odd-eighth quotes in stocks with dealer spreads of 3/4 point or more. The remaining 30-35% of stocks in the sample generally had dealer spreads less than 3/4 and were quoted in both even- and odd-eighths. Thus, the sample reflects almost uniform adherence to the convention.

By way of further illustration, Exhibit C demonstrates the systematic avoidance of odd-eighth quotes in ten of the largest volume stocks on Nasdaq. The fact that there are virtually no odd-eighth bid and ask prices quoted in some of the most heavily traded stocks on Nasdaq is remarkable, particularly when one considers that each market maker is likely updating its price quotes in these stocks numerous times each day. This unnatural price parallelism provides some -- but not conclusive -- evidence of an antitrust agreement in violation of Section 1 of the Sherman Act. See, e.g., Theatre Enters., Inc. v. Paramount Film Distrib. Corp., 346 U.S. 537, 540 (1954), and Apex Oil Co. v. DiMauro, 822 F.2d 246, 258 (2d Cir. 1987).

D. The Evidence Shows That Defendants Enforced the Quoting Convention Through Peer Pressure, Intimidation, and Refusals to Deal.

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[9] The Department's findings, although covering a different time period and a different sample of stocks, were consistent with the Christie/Schultz study, which found virtually no odd-eighth price quotes in approximately 70% of the stocks in their sample.

The Department's investigation has uncovered substantial evidence that Nasdaq market makers have enforced the quoting convention by reminding, pressuring, harassing, and intimidating each other into conformity.[10] The quoting convention protocol was elevated to the status of a "professional" or "ethical" rule. The industry even coined a derisive term -- "Chinese market" -- as a shorthand to describe a market in which a trader has entered a quote inconsistent with the established patterns. And the evidence indicates that market makers have attempted to punish economically those market makers who deviate from the agreed-upon pricing norms. Under Ambook Enterprises v. Time, Inc., 612 F.2d 604 (2d Cir. 1979), cert. dism'd, 448 U.S. 914 (1980), United States v. Foley, 598 F.2d 1323 (4th Cir. 1979) cert. denied, 444 U.S. 1043 (1980); In re Nasdaq Market Makers Antitrust Litigation, 894 F.Supp. 703 (S.D.N.Y. 1995); and United States v. Paramount Pictures, Inc., 334 U.S. 131, 161 (1948), the trier of fact may draw an inference of an antitrust agreement, where coercion is proved in addition to unnatural uniformity of pricing.

1. **Violating the Quoting Convention Was Considered to Be "Unprofessional" or "Unethical."**

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[10] The structure of the Nasdaq market facilitates detection of deviations from the well-understood quoting convention. All Nasdaq price quotes by all market makers are entered on the Nasdaq computer system and are immediately known to those interested. Thus, deviations are obvious, and can be responded to immediately.

The Nasdaq market is highly interdependent, making it easy to enforce compliance with "professional" quoting standards. Market makers rely on each other to provide order flow, information, and cooperation to help them trade positions profitably. They actively work to develop and maintain friendly relationships with traders from other firms. Traders do not want other market makers to perceive them as being uncooperative, "unethical," or "unprofessional" because that very perception may result in their loss of access to the trader networks that provide order flow, information, and cooperative trading opportunities. Retaliatory actions -- even simply putting offenders "last in line" when buying or selling stock -- serve to deter vigorous competition and punish market makers who violate the unwritten "ethical" and "professional" requirements of the Nasdaq market.

Over the years, it has become well-known throughout the industry that violating the convention -- in the parlance of the traders, "breaking the spread" -- is considered to be "unprofessional" or "unethical" trading behavior. Market makers who deviate from the convention are derisively said to be creating a "Chinese market." Numerous witnesses testified to this fact. One trader defined a "Chinese market" as follows:

> Q Let me understand what you mean by a Chinese market. What's the definition you're giving to the term --
> A That's when you have a 3/4 point spread and you move in 1/8th of a point increments.

Another trader testified that market makers were trained not to put in quotes that created Chinese markets, because they were deemed "unprofessional":

> [Q] And through the period December '93 through December of '94, do you observe the market makers entered very-relatively few odd-eighths. And by that, I mean with perhaps one or two exceptions, under *10 percent of their quotes were odd eighths* in McCormick.
>
> A Yes, ma'am.
>
> Q *And again, is that, in your professional opinion, because those market makers had three-quarter point dealer spreads and did not want to enter what were termed "unprofessional markets"?*
>
> *A Yes, ma'am.*
>
> Q How is it that all of the market makers knew that entering an odd eighth quote could be unprofessional?
>
> * * * * * * *
>
> A *Young traders were trained over the years not to put in unprofessional markets, "Chinese markets."...*
>
> * * * * * * *
>
> *This was part of the -- of the traditional and ethical on-the-job training that all of us got, and it encompasses not only that you don't put in unprofessional-looking "Chinese markets," it . . . grew out of a self-imposed industry standard of ethics and conduct.* So that's my answer as to why everybody seems to be doing this, because most of the people were trained the same way.

Another trader acknowledged that the term Chinese market referred to what the industry considered "unethical" trading practices:

> Q Have you ever heard that people using the term -- strike that.
> *Would somebody making a Chinese market cause another market maker to be angered?*
>
> A I believe that's possible.
>
> Q Under what circumstances?
>
> A I think that in -- like I said before, in coming up, I think *Chinese markets, as they're called, were looked down upon so are considered unethical. So*

by making a Chinese market, you're making yourself unethical and, therefore, I guess upsetting other market makers.

That it was deemed unethical to "make a Chinese market" was even publicized in a newsletter published by the Security Traders Association of New York ("STANY"), the largest regional affiliate of the Security Traders Association ("STA"), the principal national trade association for securities trading professionals. STANY's quarterly newsletter for the third quarter of 1989 reported on the presentations at an "Ethics Conference" held in April 1989. The article misreported that a speaker had said that "making a Chinese market" was "clearly ethical." To correct the incorrect report, STANY published an "update," at the top of which was printed, in large type, the following "Editor's Note":

> In the recently issued STANY NEWSLETTER, *we are certain you will realize that * * * * was grossly misquoted* when a portion of his speech was extracted for publication. A corrected copy is featured below.
>
> *As * * * and you are all aware, it is clearly* ***UNETHICAL*** *to make a Chinese Market* or to run ahead of an order. (emphasis and caps in original of word "unethical")

The evidence shows that peer pressure was used by market makers to ensure that so-called "professional" and "ethical" pricing standards were maintained. Trader testimony also demonstrates that "peer pressure" was effective in keeping spreads wide.

2. <u>Phone Calls Were Used To Obtain Compliance</u>.

Much of the business of Nasdaq traders is done on the telephone. Thus, it is not surprising that phone calls were employed market-wide to secure compliance with the quoting convention. At times, all that was needed to correct a Nasdaq trader's nonconforming spread or quote was a simple "friendly" inquiry, as illustrated by the following evidence. As one trader testified:

> Q *Did you ever see other firms,* when you were watching trading on the NASDAQ screen, *make Chinese markets?*
> A Uh-hum. *Yes.*
> Q *What was your reaction when you would see that?*
> A *Didn't like it.*
> Q What would you do?
> A *I'd call them up and say, would you please close your spread? If you're going to bid that price, close your spread.*
> Q Meaning what?
> A *If you're going to bid that -- you know, that eighth, close your spread to a half a point.*

In response to the Department's interrogatories, another firm stated:

> [A trader] recalled that once, when she first started trading (probably a year or two ago) she intended to update her market in Chiron CP (CHIR) by moving from the offer to the bid after her offer had been taken by another trader, but *she mistakenly moved up 1/8 instead of 1/4. Subsequently, a [trader from another firm] called and asked why she was quoting in 1/8s.* [The trader] checked her quotes, realized she had not fully updated her market, and *moved up an additional 1/8.*

On other occasions, traders resorted to more intimidating telephone calls to exact compliance with the quoting convention. Some of the more dramatic examples of these were captured on the

audio tapes that were produced by the defendants, as the following example illustrates:

Trader 1: *Who trades CMCAF in your place* without yelling it out?
Trader 2: . . . Sammy
Trader 1: Sammy who?
Trader 2: It may be the foreign department . . .
Trader 1: What?
Trader 2: The foreign didn't realize they had to trade it.
Trader 1: Well, he's trading it in an eighth and he's embarrassing...
Trader 2: . . . foreign department
Trader 1: *He's trading it in eighths and he's embarrassing your firm.*
Trader 2: *I understand.*
Trader 1: You know. *I would tell him to straighten up his [expletive deleted] act and stop being a moron.*

The record of the investigation is replete with proof that market makers used the telephone to secure compliance with their understandings about "proper" quoting protocols.[11] Indeed, a NASD employee responsible for interacting with the market making community recognized that telephone calls, which he described on one occasion as "price fixing calls," were frequently used to enforce compliance with the quoting convention.

3. **Refusals To Trade Were Used to Punish Maverick Market Makers.**

Firms that repeatedly entered quotations in violation of the quoting convention were subject to other types of discipline, with a more direct economic impact on their businesses. The most effective such discipline was refusal to deal.

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[11] However, evidence of enforcement activity varies significantly from firm to firm.

A refusal to deal in the context of the Nasdaq market has far reaching consequences for a market maker. Market makers are competitors to attract order flow, but they also frequently trade with one another. When a market maker does not want to fill a retail or institutional order from its own account, it must be able to find other market makers willing to fill those orders; otherwise, its retail and institutional clients will soon look elsewhere for trading services. Similarly, a market maker must be able to go to other market makers to lay off risk from long or short positions.[12] Consequently, the mere threat that other firms will not trade with them was often sufficient to discourage market makers from violating the convention.

Maverick market makers that improved the best quote often would not get an execution, even though other orders were being filled at the maverick's quoted price. This refusal to trade is referred to in the industry as "trading around." The same maverick firm would also frequently notice orders being filled at inferior prices to the prices they had quoted on Nasdaq when their quotes were inconsistent with the quoting convention. This practice is known as being "traded through." The effect of being "traded through" or "traded around" taught traders that there was no benefit to improving the market by an odd-eighth in a stock

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[12] A "short" position occurs when a trader sells stock that he or she does not own. A "long" position occurs when a trader owns stock that is not pledged for sale to a customer or another market maker.

with a 3/4 point or wider dealer spread because their orders would not be filled, or would be filled only when the market reversed directions.

Maverick firms were also subject to "backing away" and being made "last call" by other firms. "Backing away" involves the failure of one market maker to honor its posted quote to another market maker, as required by SEC and NASD rules. Firms that violated the quoting convention were more subject to "backing away" by other firms. Being made "last call" involves only trading with the maverick market maker when the market begins to turn against the maverick, or when a firm has no other alternative but to trade with the maverick. Mavericks also observed that they were made "last call."

4. Market Makers Fully Understood the Significance of the Quoting Convention and Its Enforcement in Maintaining Wide Spreads on Nasdaq.

The effect of the quoting convention in maintaining wide spreads on Nasdaq was known even to employees and members of the industry's self-regulatory organization, the NASD; moreover, the NASD recognized the causal connection between widening spreads on Nasdaq and "peer pressure" applied to keep spreads wide.

The Department discovered during its investigation that, in the spring of 1990, the NASD's Trading Committee[13] began to address "the problem of spreads." The issue became a matter of concern because the New York Stock Exchange ("NYSE") had begun to use the fact of wide spreads on Nasdaq to attract issuers to the NYSE. In a meeting on June 27, 1990, Trading Committee members discussed the widely understood effect of the quoting convention and the notion of "Chinese markets" as contributing to wider spreads. According to notes of the meeting, a member of the committee -- representing a small market making firm -- indicated that market makers got calls from big firms when they "broke spreads" or made "Chinese markets." In his view, the problem was the "arrogance of mandate" exercised by the larger firms.

In his testimony before the Department, this senior Trading Committee member confirmed that traders from competing firms discussed the quoting convention and Chinese markets at this meeting. In addition, he testified:

> A. I think the establishment of this acceptance of spreads [sic]. And I think it went way back. My opinion and what I was trying to get across, and maybe didn't do, was that this was a historical thing. This is something that had evolved from trading in the '50s and the '60s and the '70s and so forth. And that *everyone accepted this protocol, that a spread is a*

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[13] The Trading Committee, which consisted largely of market makers, was one of the most powerful of the NASD's "self-regulatory" committees. It was the principal committee responsible for recommending changes to the NASD Board of Governors in the trading rules governing Nasdaq.

spread is a spread. And it's not your place to change it.

The spread is a result of almost a God given natural phenomenon. That it is not some up-stark [sic] traders place to change that. That was the accepted protocol for years and years and years, to my knowledge.

And so I was trying to get across that that's where we have been. And to try to break that protocol and change it would have gotten a call from some old -- somebody that had been around for a long time saying, hey, don't break the spread. That shouldn't be anymore.

My lesson, that I was trying to bring, is that can't -- we can't be doing that in the 90's. No one can be, no matter how arrogant they may think of themselves, no matter who it is, whether it is the biggest money firm on Wall Street or the person with the biggest money commitment. No matter who they are, they should not be allowed to intimidate you. If you want to break a spread that is your prerogative.

* * * * * * *

Q. And is it your best interpretation of this problem with arrogance and mandate, the fact that there was certain arrogance in the industry about spreads and that if you try and alter spreads, you get telephone calls. Is that the general gist of that?

A. I think that the word arrogance would have to do with a trader's -- either his impression of himself or his firm, that he was big enough to influence someone not to narrow spreads. But that is the only way I can conceptualize how to use the word arrogance, which was used.

Subsequent to this meeting, the Quality of Markets Subcommittee of the Trading Committee was formed to examine two issues, one of which was the "spreads problem." The Quality of Markets Subcommittee was composed exclusively of representatives of leading market-making firms; however, certain NASD staff attended these meetings as well. At one such meeting, on March 24, 1992, a NASD staff member took notes. These notes indicate that the participants at the March 24 meeting discussed

the quoting convention, Chinese markets, and the fact that market makers who tightened spreads were subjected to "intimidation" from others. This meeting apparently led to the NASD's hiring of an industry consultant to help explain "Why does the 'Chinese market' syndrome has [sic] such impact on NASDAQ while listed markets seem to continuously quote in combinations of 1/8's, 1/4's."

On June 30, 1992, having completed his research into the "spreads problem," an NASD employee wrote a memorandum entitled simply "Spreads," and sent it to the NASD senior management group. The memorandum stated, in pertinent part:

> Spreads increased absolutely from the 1st Quarter of 1989 to May 1992 from .226 to .369. The % increase was 63%. Our method of calculating spreads i.e. volume weighted, actually portrays the situation better than it actually is. A stock by stock comparison would be worse.
>
> * * * * * * *
>
> 3. Unlike auction markets, dealers do not change prices one side at a time and there is a stigmatism [sic] associated with making so called "Chinese" markets . . . [n]o one attempts to do just a "little" better with their published quote change . . . .
>
> * * * * * * *
>
> . . . I understand that when attempts are made by individual dealers to [narrow spreads], peer pressure is brought to bear to reverse any narrowing of spreads. I have no hard evidence of this and the information is only anecdotal and this was not described as happening in every case. However, enough people have said it for me to believe it to be true.

Spreads became a more troubling topic for the NASD, as well as the market-making community in general, following the publication in August 1993 of a <u>Forbes</u> magazine article entitled

"Fun and Games on Nasdaq." The article alleged, among other things, that market makers who narrowed spreads were harassed:

> [N]ovice traders learn quickly that if they want to keep their jobs on an OTC desk, they will do well not to beat the price of fellow market makers. Breaking the spread, as it is called, just isn't done. One veteran who tried on occasion to narrow an OTC spread told Forbes, "I used to get phone calls from people. They'd scream, 'Don't break the spread. You're ruining it for everybody else.'"

Asked to give his input about these charges, a NASD employee detailed, point by point, the merits of the claims. With respect to the allegations of harassment, he wrote: "I believe this to be true."

E. Adherence to the Convention Was Often Inconsistent With the Market Makers' Economic Self-Interest.

Under the law, if the behavior dictated by a hypothesized antitrust conspiracy is economically "irrational," or makes no sense, or is contrary to independent self-interest *unless* the conspiracy posited actually exists, a court may find an agreement in violation of the antitrust laws. In other words, actions against economic self-interest are a "plus factor" which would support a judgment in favor of the United States in the case filed:

> "Plus factors" identified by courts, which, in combination with parallel pricing, may support an inference of conspiracy, include a common motive to conspire, actions which were against their own individual business interest absent an illicit agreement, and evidence of coercion.

In re Nasdaq Market-Makers Antitrust Litigation, 894 F.Supp. at 713. See also Modern Home Ins. v. Hartford Acc. & Indem. Co.,

513 F.2d 102, 111 (2d Cir. 1975), Beech Cinema Inc. v. Twentieth Century-Fox Film Corp., 622 F.2d 1106 (2d Cir. 1980), and Ambook Enterprises v. Time Inc., supra.

The terms of the quoting convention contain a self-enforcing mechanism designed to foster, support, and maintain wide inside spreads. As noted, under the quoting convention, market makers who wish to quote an even-eighth stock in odd-eighth increments (thereby creating a powerful tendency toward a narrower, 1/8 inside spread) must first narrow their dealer spreads. Narrowing one's dealer spread imposes a "penalty" or cost on the use of odd-eighth increments because a narrower dealer spread can increase the financial risk to the market maker in trading that stock, as was recognized by one trader in deposition testimony:

> Q *What would be the advantage to a market-maker to have a greater dealer spread in a stock?*
> A *Less apt to be hit or taken, therefore putting in an unwanted position.*
> Q That would be in response to a market move they had not anticipated?
> A That is correct.
> Q *Is there sort of a monitoring cost of the stock that is reduced if you have a wider dealer spread?*
> A *I guess you could say that. It would be easier to stay out of the way.*
> Q You can characterize it as either a greater risk of being hit when you don't want to be hit or a greater burden of avoiding that result?
> A Having a tighter spread?
> Q Right.
> A Correct.

Another trader also succinctly explained the risk imposed by a narrower dealer spread:

[A] "What are the ramifications [of a narrower dealer spread]? *Yes, I may have been able to buy stock at an eighth. But on the other hand . . . if you shrink your dealer spread you are subject to more risk in terms of being SOES'ed and everything else, there was a penalty for me to increase my price [by an eighth] and decrease my spread."*

Because of this increased risk, it is often against a market maker's economic self-interest to narrow its dealer spread simply to quote in an odd-eighth increment. The requirement that a market maker reduce its dealer spread when quoting in eighths had the effect of discouraging use of odd-eighth increments; thus the quoting convention kept spreads wider for longer than they would have been in a competitive market.

There were and are numerous instances in which one would have expected to see odd-eighth quotes in order to, for example, seek to transact at a more favorable price than would be generated by a quarter-point increase in a bid price or a quarter point decrease in the ask price. Yet adherence to the quoting convention kept market makers from acting in their economic self-interest by entering odd-eighth quotes in such circumstances. Traders acknowledged as much in their deposition testimony, as noted by the following examples:

[Q] ... This is what's giving me trouble. If you can buy something at an eighth by only going up an eighth, why bother to go up a quarter? I guess that's what confusing me.
A Well, that, I think, speaks to the *professional appearance concept and the tradition, if you will, concept,* that even if I'm not dealing for a client, I may be short the stock. *I am going to move that market at a quarter-point increment; even though I would much rather buy it at*

an eighth, I am not going to put a bad market or an unprofessional-looking market in the screen.

Another trader testified:

Q *In the absence of the convention, would there have been circumstances that [you] wanted to quote in odd eighth?*
A *Yes, probably.*

Market makers understood they were giving up the opportunity to quote stocks in odd-eighths in exchange for increased profits for the market-making community as a whole, provided all market makers adhered to the convention. This trade-off was acknowledged in a tape-recorded telephone conversation in which one trader's assistant noted: "[A]t the same time . . . you always wanted to wish you could always go offer it at 7/8ths," and the other trader's assistant replied, "True," "but you'd give that wish up in a second to keep the spread . . . keep that P&L nice and lofty."

F. Market Makers Began to Change Their Price Quoting Behavior When Confronted with Charges of Collusion and the Government Investigations.

Under established law, evidence of a significant change in behavior of alleged conspirators is admissible to prove the existence of a conspiracy. See United States v. Koppers Co., 652 F.2d 290 (2d Cir. 1981); Ohio Valley Elec. Corp. v. General Elec. Co., 244 F.Supp. 914 (S.D.N.Y. 1965). The fact that market makers for years used the quoting convention to maintain wide inside spreads is further evidenced by the change in their price

quoting behavior once their anticompetitive conduct began to come to light.

On May 24, 1994, the NASD, STA, and STANY convened a meeting at the headquarters of Bear Stearns & Co. in New York that was attended by over 100 market maker representatives. The principal item on the agenda for that meeting was the issue of wide spreads on Nasdaq. Three days later, after public disclosure of the Christie/Schultz study by the Los Angeles *Times* and the *Wall Street Journal*, dealer spreads of a number of major Nasdaq stocks began to narrow. Within one week, the prevailing dealer spreads of four of the most prominent Nasdaq stocks -- Microsoft, Apple, Amgen, and Cisco -- had narrowed from 3/4 to 1/2 point, and market makers accordingly began entering odd-eighth quotes in those stocks.[14]

Other events occurred throughout the remainder of 1994 that effected changes in the market makers' quoting and pricing behavior. These included the filing of several class-action lawsuits immediately after disclosure of the Christie/Schultz study; the opening of the Department's investigation in the summer of 1994; the Los Angeles *Times* six-part series in October 1994 concerning allegations of collusion on Nasdaq; and the public announcement of the SEC's inquiry in November.

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[14] Attached as Exhibit D are charts that show the dramatic changes in the quoting on these major stocks, going from virtually no odd-eighth quotes to a substantial number almost overnight.

The Department's analysis of market data, as discussed below, shows that these events have caused changes in the Nasdaq market: the percentage of stocks that previously avoided odd-eighth quotes has fallen dramatically; average dealer spreads and inside spreads have decreased; and the percentage of stocks that have been quoted in violation of the convention -- *i.e.*, using an odd-eighth price with a dealer spread of 3/4 point or greater -- has risen substantially. These changes indicate that there was no satisfactory economic reason for the extent of the wide spreads that had prevailed so persistently in the previous years.

1. **The Decline in the Avoidance of Odd-Eighth Price Quotes.**

Attached as Exhibit A is a chart that demonstrates graphically the extent to which market makers have begun to use odd-eighth price quotes in stocks where such quotes were previously avoided. This chart is based on the Department's data set previously discussed -- 224 of the top-dollar volume Nasdaq stocks. As the chart demonstrates, prior to disclosure of the Christie/Schultz study, nearly 70% of the stocks from the sample avoided odd-eighth price quotes at least 99% of the time; in March of 1996, only approximately 15% of the sample avoided odd-eighths to this extreme degree.

2. **The Decline in the Average Inside Spread.**

The striking decline in the avoidance of odd-eighths and dealer spreads runs almost exactly parallel to a decline in the average inside spread in Nasdaq stocks. The Department examined

the average quoted inside spread by month for the 224 stocks in its sample. See Exhibit E. The peak month was December 1993, when the average inside spread reached 44 cents (although April 1994 was nearly as high). Subsequently, from May 1994 through March 1996, the average inside spread continued to fall steadily. By March 1996, it had fallen to 32 cents, a decline of almost 28% in approximately two years.

The Department has also calculated the average percentage value of the inside spread as a proportion of a stock's price for the same stocks in the same period. See Exhibit F. This analysis reveals an even sharper decline, with this value declining from as high as 1.6% to less than 1% in September of 1995, increasing slightly to 1.04% in March 1996.[15]

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[15] In the twelve months since public disclosure of the Christie/Schultz study, the average inside spread for Nasdaq National Market System stocks fell 15.6 percent from 34.6 cents to 29.2 cents. (These data were obtained from the NASD's internal, monthly, "Stat Book," for December, 1994 and May, 1995, obtained by the Department in discovery in this investigation.) For the Department's sample of 224 stocks, the average inside spread fell 27.3 percent from 44 cents to 32 cents. Not all investors pay the quoted spreads, but many -- especially small, retail investors -- do.

Institutional investors also are affected by the quoted inside spread on Nasdaq. The effect of the quoting convention on institutional customers is demonstrated by the change in effective spreads of transactions by firms that specialize in institutional trading. The Department calculated the decline in effective spreads for Apple Computers, Inc., from May to June 1994, for eight such firms. The average effective spread fell from 18.8 cents to 11.4 cents when the inside spread on Apple dropped from 1/4 to 1/8 in those months. The term "effective spread," as used here, measures spread costs based on the difference between actual transaction prices and the mid-point of the inside spread. The effective spread in a security is an accepted measure in financial economics to determine the spreads

3. <u>The Decline in Adherence to the Quoting Convention.</u>

The Department has also examined whether market makers, in fact, adhered to, and whether they have continued to adhere to, the quoting convention that prohibits the use of odd-eighths when the dealer spread is 3/4 point or greater.

The Department determined the percentage of the 224 stocks that violated the quoting convention at least 1% of the time in each month. *See* Exhibit G. In December 1993, only 5% of the 224 stocks traded had violations of the convention by the 1% standard. By June 1994, following the Christie/Schultz disclosure, this proportion jumped to 10%. The proportion of stocks that violate the quoting convention has continued to increase until March 1996, when fully 45% of all stocks from the sample violated the convention at least 1% of the time. These results are even more dramatic when it is recognized that use of dealer spreads of 3/4 point or more has fallen significantly during the same period, thereby reducing the number of situations in which market makers could violate the convention by quoting odd-eighths.

J. <u>The Market Makers' Pricing Behavior Was Different in a Comparable Market.</u>

Evidence of a conspiracy may be inferred from the difference in competitive performance between two comparable markets.

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actually paid by customers.

Professor Areeda describes this type of evidence, and its value, in his treatise:

> If two markets are identical in every respect (other than the possibility of conspiracy), then substantially less competitive performance or behavior in one of them *must* be attributable to a conspiracy. The logic is unassailable. . . .
>
> *Even without exact identity in every respect, conditions preventing tacit price coordination in one market should have the same effect in a substantially similar market. Accordingly, if a given set of rivals maintains relatively competitive prices in one of those markets but not in the other, then an extra factor -- such as an explicit agreement -- must explain the significantly less competitive prices in the other market.*

Areeda, Antitrust Law, ¶ 1421, 132 (1986)(emphasis added). See also, Petruzzi's IGA Supermarkets v. Darling-Delaware Co., Inc., 998 F.2d 1224 (3d Cir. 1993).

Although the quoting convention prevented market makers from quoting even-eighth stocks in odd-eighths on Nasdaq, it did not constrain them from entering odd-eighth quotes for the same stocks on Instinet. Instinet is an electronic market that permits broker dealers and institutions to enter orders anonymously to buy and sell and execute against those orders. In many ways, it is comparable to the Nasdaq market. The same stocks are traded by the same market makers at the same time. The size of the trades and quotes on the two systems are very similar as well.

Quotes on Instinet, however, are quite different. They are much more likely to be at an odd-eighth, and are *usually inside*

the inside spread on Nasdaq. The Department examined the ten largest trading volume stocks for which odd-eighth quotes rarely appeared on the Nasdaq screen during the first 20 days of May, 1994. See Exhibit C. On Instinet, however, the defendants used odd-eighth prices routinely, some 40% to 50% of the time. See Exhibit H.

The substantial use of Instinet to quote and transact at odd-eighths relates to the fact that (1) it is anonymous, which allowed market makers to quote and transact at odd-eighths without provoking a reaction from other market makers, and (2) quotes entered on Instinet have historically been viewed as not affecting their best execution obligation. A quote on Instinet, then, would not require other marker makers to transact at that price for other trades. In addition, Instinet is unavailable to retail customers,[16] which allowed market makers to transact with other market makers and institutions at better prices than those on the Nasdaq screen at which retail customer trades were executed.

IV.

EXPLANATION OF THE PROPOSED ORDER

Prohibited Conduct. The proposed Order will deter the recurrence of conduct discovered by the Department in its

[16] Instinet is available to brokers, market makers, and institutional investors.

investigation that violates Section 1 of the Sherman Act and that is plainly anticompetitive. Specifically, the proposed Order bars each of the defendants, unless otherwise specifically permitted, in connection with its market making activities in OTC stocks, from agreeing with any other market maker:

(1) to fix, raise, lower, or maintain quotes or prices for any Nasdaq security;

(2) to fix, increase, decrease, or maintain any dealer spread, inside spread, or the size of any quote increment (or any relationship between or among dealer spreads, inside spreads, or the size of any quote increment), for any Nasdaq security;

(3) to adhere to a quoting convention whereby Nasdaq securities with a three-quarter (3/4) point or greater dealer spread are quoted on Nasdaq in even-eighths and are updated in quarter-point (even-eighth) quote increments; and

(4) to adhere to any understanding or agreement (other than an agreement on one or a series of related trades) requiring a market maker to trade at its quotes on Nasdaq in quantities of shares greater than either the Nasdaq minimum or the size actually displayed or otherwise communicated by that market;[17]

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[17] The reference to agreements "other than an agreement on one or a series of related trades" is intended to make clear that a market maker is not prohibited from agreeing to buy or sell a

In addition, the proposed Order bars each of the defendants from engaging in any harassment or intimidation of any other market maker because such market maker:

(1) decreased its dealer spread or the inside spread in any Nasdaq security;

(2) refused to trade at its quoted prices in quantities of shares greater than either the Nasdaq minimum or the size actually displayed or otherwise communicated by that market maker; or

(3) displayed a quantity of shares on Nasdaq greater than either the Nasdaq minimum or the size actually displayed or otherwise communicated by that market maker.

Finally, paragraph (8) Section IV of the proposed Order bars the defendants from refusing, or threatening to refuse to trade (or agreeing with or encouraging any other market maker to refuse to trade) with any market maker at defendant's published Nasdaq quotes in amounts up to the published quotation size because such market maker decreased its dealer spread, decreased the inside spread in any Nasdaq security, or refused to trade at its quoted prices in a quantity of shares greater than either the Nasdaq

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specific quantity of stock, and that agreeing to buy or sell a quantity of shares greater than the amount initially specified in a series of related trades also does not violate the proposed Order.

minimum or the size actually displayed or otherwise communicated by that market maker.

Required Conduct. The proposed Order contains numerous provisions designed to ensure compliance with its terms and with the federal antitrust laws. Significantly, it requires that each defendant initiate and maintain an antitrust compliance program. Under the compliance program, an Antitrust Compliance Officer, to be appointed by each defendant, is required to distribute copies of the proposed Order to certain personnel, including members of the defendant's board of directors and its Nasdaq traders; to brief traders semi-annually on the meaning and requirements of both the federal antitrust laws and the proposed Order; and to obtain from specified persons, including traders, certifications that they have read and agree to abide by the terms of the proposed Order, and that they have been advised and understand that a violation of the proposed Order by them may result in their being found in civil or criminal contempt of court.

The proposed Order also requires each defendant to undertake a significant program of monitoring and recording trader conversations so as to discourage conduct violative of the proposed Order and the federal antitrust laws generally. Under the proposed Order, each defendant will install taping systems capable of monitoring and recording any conversation on the telephones on its OTC desk that are used in market making. Not less than 3.5% of all trader conversations will be monitored and

recorded, unless such percentage would exceed 70 hours per week. Thus, 70 hours per week is the maximum amount of taping required of any defendant. Between 35-40,000 hours of tape will be required to be recorded annually to meet these requirements of the proposed Order. The methodology proposed to be employed by each defendant to conduct this monitoring and recording is subject to Department approval. If the Antitrust Compliance Officer discovers a conversation he/she believes may violate the proposed Order, he/she is required to retain a recording of the conversation, and, within ten business days, to furnish the tape, along with any explanation of the conversation the defendant may care to offer, to the Department. The Department estimates that defendants will have to employ approximately thirty (30) persons full time to fulfill the monitoring requirement of the proposed Order.

Tapes made pursuant to the proposed Order are required to be retained by each defendant for at least 30 days from the date of recording. The tapes made pursuant to the proposed Order are not subject to civil process except for process issued by the Antitrust Division, the SEC, the NASD, or any other self-regulatory organization. The proposed Order directs that such tapes not be admissible in evidence in civil proceedings, except in actions, proceedings, investigations, or examinations commenced by the Antitrust Division, the SEC, the NASD, or any other self-regulatory organization. The tapes will be subject to

process and use in criminal proceedings under the terms of the proposed Order.

Section IV.C.(6) of the proposed Order, regarding permissible uses of tape recordings made pursuant to the proposed Order, does not affect the ability of a grand jury to obtain such tapes. Nor does the provision affect the susceptibility of such tapes to criminal process or their admissibility in evidence in criminal proceedings.

The proposed Order grants the Department the right to visit any defendant's place of business unannounced and to monitor trader conversations as they are occurring. Upon request of the Department, a defendant must identify all tape recordings made pursuant to the proposed Order that are in its possession or control, provide the Department with the opportunity to listen to any tape recording made pursuant to the proposed Order, and produce to the Department such tapes as the Department may request. The Department may receive complaints or referrals concerning asserted possible violations of the proposed Order and may, based upon such complaints or referrals, or for the purpose of monitoring or enforcing compliance with the proposed Order, require the Antitrust Compliance Officer to tape the conversations of particular traders, up to the limits previously specified.

Additional Relief. Each Antitrust Compliance Officer is required by the proposed Order to report quarterly to the

Antitrust Division concerning activities undertaken to ensure the defendant's compliance with the proposed Order. Such reports must detail the precise times when conversations were monitored by the Antitrust Compliance Officer pursuant to the requirements of the proposed Order and the name of each person employed by the defendant whose conversations were recorded during such times. The proposed Order also requires that each defendant certify the designation of an Antitrust Compliance Officer and that the defendant has complied with certain specified requirements of the proposed Order.

The proposed Order gives the Department certain "visitation" rights, including the right to demand copies of documents, excluding individual customer records, which relate to compliance with the proposed Order; and to interview officers, employees, or agents of each defendant regarding compliance with the proposed Order. In addition, upon written request of the Attorney General or the Assistant Attorney General in charge of the Antitrust Division, a defendant may be required to prepare and submit written reports, under oath, relating to defendant's compliance with the proposed Order.

V.

REMEDIES AVAILABLE TO PRIVATE LITIGANTS

Section 4 of the Clayton Act, 15 U.S.C. § 15, provides that any person who has been injured as a result of conduct prohibited by the antitrust laws may bring suit in federal court to recover three times the damages suffered, as well as costs and reasonable attorneys' fees. Entry of the proposed Order will neither impair nor assist the bringing of such actions. Under the provisions of Section 5(a) of the Clayton Act, 15 U.S.C. § 16(a), the proposed Order has no *prima facie* effect in any subsequent lawsuits that may be brought against the defendants in this case.

VI.

PROCEDURES AVAILABLE FOR MODIFICATION OF THE PROPOSED ORDER

As provided by the APPA, any person believing that the proposed Order should be modified may submit written comments to John F. Greaney, Chief, Computers and Finance Section, U.S. Department of Justice, Antitrust Division, 600 E Street, N.W., Room 9300, Washington, D.C. 20530, within the 60-day period provided by the Act. These comments, and the Department's responses, will be filed with the Court and published in the Federal Register. All comments will be given due consideration by the Department, which remains free to rescind its agreement to entry of the proposed Order at any time prior to actual entry by the Court. The proposed Order provides that the Court retains

jurisdiction over this action, and the parties may apply to the Court for any order necessary or appropriate for modification, interpretation, or enforcement of the Order.

VII.

OTHER ANTICOMPETITIVE CONDUCT REMEDIED BY THE PROPOSED ORDER

In addition to the quoting convention, the Department's investigation uncovered four types of other unlawful conduct involving market makers which are not alleged in the Complaint, but are fully remedied by the prohibitions in the proposed Order. First, the investigation uncovered numerous examples of what are often referred to as "moves on request." A "move on request" occurs when trader A calls trader B and asks him to change the price he is quoting for the purpose of affecting the market in that stock.[18] When B complies, his move will generate a misimpression that there is an additional buying or selling interest in the stock, from which A will possibly profit. Trader B benefits because A will return the favor when B wants to influence the market in a stock.

Second, the investigation uncovered instances of market maker agreements on dealer spreads. Such agreements were intended to widen or preserve the width of the inside spread and

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[18] Not all of the firms named in the Complaint engaged in such conduct, and no inference of participation in this conduct should be drawn from the fact that a firm has been charged as a defendant herein.

to reduce the risk of unwanted executions. The purpose and effect of these types of agreements is to increase trader profits or reduce participants' risk of loss from their trading activities.[19]

Third, the Department also investigated an apparent "size" convention that may limit competition among Nasdaq market makers by deterring them from improving the inside spread in a stock (with a new bid or ask quote) on Nasdaq, unless they are prepared to trade in quantities greater than their posted quote, typically 1,000 shares. With every posted bid and ask quote, a trader must also quote a number of shares that he or she is willing to trade at that price. Many traders admitted that this "good for size" requirement was honored by most market makers, and admitted that they would complain to other market makers who cut spreads, only to then engage in the NASD minimum size trade.

Fourth, the Department also discovered evidence that some maverick firms that tried to attract larger orders by displaying greater size than the NASD minimum received the same sort of enforcement threats against this behavior that they had received when they narrowed the inside spread.

Together, these latter two practices adversely affected smaller market makers. Such firms could not take large positions in a stock and then "advertise" their willingness to trade in

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[19] A limited number of market-making firms were discovered to have engaged in this conduct. There is no evidence that the majority of firms engaged in this conduct.

that size by posting a public quote for a larger than minimum sized transaction. Nor could they compete on price unless they were "implicitly" willing to be "good for size" at any improved price.

The Department has elected not to pursue a civil case that includes instances of any of the above-described conduct against the defendants for the reason that the proposed Order affords the Department and the public all the relief that could be obtained if the Department charged them as violations and prevailed at trial. Further, while unlawful and harmful to consumers, the total impact on the amount of commerce affected by these alleged violations is a fraction of that affected by the quoting convention.

VIII.

ALTERNATIVES TO THE PROPOSED ORDER

As an alternative to the proposed Order, the Department considered litigation on the merits. The Department rejected that alternative for two reasons. First, the Department is satisfied that the various compliance procedures to which defendants have agreed will ensure that the anticompetitive practices alleged in the Complaint are unlikely to recur and if they do recur will be punishable by civil or criminal contempt, as appropriate. Second, a trial would involve substantial cost both to the United States and to the defendants, and is not

warranted since the proposed Order provides all the relief the Government would likely obtain following a successful trial.

IX.

ALTERNATIVE FORMS OF RELIEF CONSIDERED

In addition to the relief obtained in the Order, the Department considered, as a condition of settlement, a term in the proposed Order requiring the defendants to tape record and preserve for up to six months all of the conversations of their traders engaged in market making in Nasdaq stocks. At the time consideration was given to such a requirement, the proposed relief did not contain a term requiring that each defendant appoint an Antitrust Compliance Officer to record and listen to trader conversations.

Ultimately, instead of requiring defendants to tape and preserve all trader conversations, without any oversight or compliance efforts by defendants, the Department determined that the identical remedial purpose could be served more efficiently by requiring defendants to monitor and record a relatively small percentage of such conversations, without informing traders when their conversations would be recorded, and also by requiring that such conversations as are recorded *actually be reviewed promptly for violations*. Thus, traders at the twenty-four defendant firms (and those who trade with them in the industry) will know that

some portion of their calls are being taped, but will have no way of knowing which ones.

Further, under the proposed Order, the Department is given the right to receive complaints of possible violations and *to direct future taping of possible violators without informing traders that this particular taping is ongoing.* This feature of the proposed Order is of vital importance, for it allows ongoing monitoring, if believed necessary, of traders about whom complaints have been made. The Department believes that these requirements to monitor and record, and to direct the monitoring and recording, of trader conversations will provide substantial opportunities for detection of violations of the proposed Order as well as substantial incentives for the defendant firms and individual traders to comply with the terms of the proposed Order, and the antitrust laws.

The Department has calculated that, given the number of defendants and the number of traders employed by these defendants, the number of hours of trader conversations actually to be monitored and recorded per year pursuant to the proposed Order is likely to range between 35,000 and 40,000 hours.[20] Further, while the absolute number of hours of trader conversations required to be monitored and recorded at any

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[20] The Department has calculated that, if the proposed Order is entered by the Court, the defendants will be required to engage approximately thirty (30) full-time employees to monitor compliance with the requirements of the proposed Order for up to five years.

individual firm (in relation to the number of traders and the number of hours the market is operating) may be few, traders who might be inclined to violate the proposed Order, in addition to being subject to prosecution for criminal or civil contempt (and under the antitrust laws), must also be concerned that their conversations are being monitored and recorded by another of the twenty-four firms subject to the proposed Order.

To the best of the Department's knowledge, these provisions are unprecedented in any court order resolving an antitrust complaint filed by the United States. There is some precedent in the securities field for directing taping as a remedial measure. In two SEC cases involving firms alleged to have engaged in serious and repeated violations of the securities laws, the firms were required to tape their brokers. S.E.C. v. Stratton Oakmont Inc., 878 F.Supp. 250 (D.D.C. 1995)(taping required by independent consultant); In the Matter of A.R. Baron & Co., Inc., SEC News Digest 96-101, File No. 3-9010 (May 30, 1996). There is also precedent for taping in the National Futures Association's imposition of taping for certain telemarketing activities. National Futures Association Manual ¶9021 (Interpretive Notice, "Compliance Rule 2-9; Supervision of Telemarketing Activity" (Jan. 19, 1993)). Perhaps most importantly, the taping provision finds precedent in the industry's own practice of taping to resolve disputes.

The Department's investigation depended heavily on the conversations discovered on tapes produced pursuant to process. Fourteen firms making markets on Nasdaq, including some of the largest, regularly taped all of their traders, all of the time. The Department believes that the tapes made pursuant to the proposed Order will both serve an important deterrent effect to ensure compliance with the proposed Order, as well as provide the best means of detecting, proving, and punishing violations of the proposed Order, should they occur.

Second, the Department considered requiring, as a condition of settlement, the appointment of a special master to monitor compliance with the terms of the proposed Order. Under this possible form of relief, the defendants would have been required to fund the activities of the special master. The special master and his staff would have undertaken the responsibilities that, under the proposed Order, will be assumed by the Department. These responsibilities include, for example, approving the taping systems the defendants will be required to install, receiving the reports required to be submitted by the defendants, receiving complaints and directing the monitoring of the conversations of particular traders.

Ultimately, because of difficulties in determining how the costs of funding the special master would be shared equitably among the defendants, and because of the concern of many of the defendants that a special master would become yet a fourth agency

(in addition to the SEC, the NASD and the Antitrust Division) with jurisdiction to monitor their activities, the Department determined that it would not require the appointment of a special master and that it could fulfill the responsibilities to monitor imposed by the proposed Order.

To implement its responsibilities under this portion of the proposed Order, the Department has assigned an attorney in its New York Field Office, Geoffrey Swaebe, Jr., to provide initial oversight of the implementation of Sections IV.C.(2)-(10), V, and VI of the proposed Order. Mr. Swaebe's address is Antitrust Division, New York Field Office, 26 Federal Plaza #3630, New York, NY 10278-0140. Mr. Swaebe's telephone number is (212) 264-0652. The general number for the New York Field Office is (212) 264-0390.

The Department has also established a new telephone "hotline" for traders, retail brokers, or members of the public to report violations of the proposed Order or the federal antitrust laws generally, in the securities or any other industry. Anyone with information concerning such possible violations may call the toll-free hotline, 1-888-7DOJATR (1-888-736-5287).

Third, the Department considered but ultimately did not require as a condition of settlement, that the defendants implement certain quoting rules recently proposed by the SEC to improve the handling and execution of customer orders (File No.

S7-30-95). The Department considered having the defendants implement two of these proposed rules immediately. These two proposed rules, which are still under consideration by the SEC, include a "Limit Order" proposal requiring specialists and OTC market makers to display customer limit orders priced better than the specialist's or OTC market maker's quote; and an "Electronic Communications Networks" proposal that would require exchange specialists and OTC market makers to quote to the public any better prices that they privately quote through certain electronic communications networks, such as Instinet.

The Department submitted formal comments to the SEC strongly supporting the adoption of the Limit Order proposal and supporting the Electronic Communications Networks proposal on January 26, 1996. In those comments, we noted that, "[i]n effect the Limit Order proposal will allow customer limit order to compete more effectively with market makers' quotes, injecting additional competition into the Nasdaq market." We identified the "primary beneficiaries of this added competition . . . [as] the investing public, in the form of narrower bid/ask spreads and thus a reduced cost of trading." As to the Electronic Communications Networks proposal, we stated that it "may reduce the possibility of collusion and may also serve some of the Commission's other goals, such as promoting transparency and reducing market fragmentation."

The Department did not negotiate to include either the Limit Order or the Electronic Communications Networks proposals as part of the relief because of the complexity involved in requiring less than all industry participants to implement the rules, because of fairness concerns, and because of the pendency of the rules before the SEC.

X.

LEGAL STANDARD GOVERNING THE COURT'S PUBLIC INTEREST DETERMINATION

In accordance with the APPA, this Court must determine whether entry of the proposed Order "is in the public interest." 15 U.S.C. § 16(e). In undertaking this assessment, the D.C. Circuit recently explained, "the court's function is not to determine whether the resulting array of rights and liabilities is the one that will best serve society, but only to confirm that the resulting settlement is within the reaches of the public interest." United States v. Microsoft Corp., 56 F.3d 1448, 1460 (D.C. Cir. 1995) (emphasis in original) (internal quotations omitted).[21]

The Court's role in passing on a proposed Order is limited because a stipulation and order embodies a settlement, see United States v. Armour & Co., 402 U.S. 673, 681 (1971), one reflecting

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[21] Accord United States v. Bechtel Corp., 648 F.2d 660, 666 (9th Cir.), cert. denied, 454 U.S. 1083 (1981); United States v. Gillette Co., 406 F. Supp. 713, 716 (D. Mass. 1975).

both the Department's predictive judgment concerning the efficacy of the proposed relief and the Department's exercise of prosecutorial discretion.[22] For a court to engage in "an unrestricted evaluation of what relief would best serve the public" might threaten these benefits of "antitrust enforcement by consent decree," United States v. Bechtel Corp., 648 F.2d 660, 666 (9th Cir.), cert. denied, 454 U.S. 1083 (1981), and thereby frustrate Congress's intent to "retain the consent judgment as a substantial antitrust enforcement tool," S. Rep. No. 298, 93d Cong., 1st Sess. 7 (1973); H.R. Rep. No. 1463, 93 Cong., 2d Sess. 6 (1974), reprinted in 1974 U.S.C.C.A.N. 6535, 6538-39.

The Tunney Act authorizes a court to consider:

> (1) the competitive impact of such judgment, including termination of alleged violations, provisions for enforcement and modification, duration or relief sought, anticipated effects of alternative remedies actually considered, and any other considerations bearing upon the adequacy of such judgment;
>
> (2) the impact of entry of such judgment upon the public generally and individuals alleging specific injury from the violations set forth in the complaint including consideration of the public benefit, if any, to be derived from a determination of the issue at trial.

Id. In applying these criteria, appropriate concern for preservation of a stipulation and order as an effective enforcement tool requires the Court to focus its inquiry

[22]As the Ninth Circuit explained, "[t]he balance of the competing social and political interests affected by a proposed antitrust consent decree must be left, in the first instance, to the discretion of the Attorney General." Bechtel, 648 F.2d at 666.

narrowly. See also United States v. American Cyanamid Co., 719 F.2d 558, 565 (2d Cir. 1983) (explaining that the "public interest" standard should be "based on more than a broad and undefined criteria"), cert. denied, 465 U.S. 1101 (1984). A Tunney Act court properly may consider whether a proposed order is ambiguous or contains inadequate compliance mechanisms, for these shortcomings may hinder the decree's successful implementation. See Microsoft, 56 F.3d at 1461-62. The Court may also ask if the proposed order potentially works "unexpected harm" to third parties, id. at 1459, or impairs important public policies other than competition policy, see United States v. BNS Inc., 858 F.2d 456, 462-62 (9th Cir. 1988). The Court, however, may not reject the proposed order merely because it fails to secure for a third party benefits it seeks. See Microsoft, 56 F.3d at 1461 n.9.

The Court may also ask whether the relief embodied in the proposed decree is "so inconsonant with the allegations charged as to fall outside of the `reaches of the public interest.'" Id. at 1461. The Department's allegations cabin this inquiry; the Court may not look beyond the Complaint "to evaluate claims that the government did not make and to inquire as to why they were not made." Id. (emphasis in original). And, in evaluating the proposed order as a remedy for the particular violations alleged, the Court must afford the Department even greater deference than when the Court considers an uncontested decree modification -- a

context in which a court may reject the proposal only if "it has exceptional confidence that adverse antitrust consequences will result -- perhaps akin to the confidence that would justify a court in overturning the predictive judgments of an administrative agency.'" Id. at 1460 (quoting United States v. Western Elec. Co., 993 F.2d 1572 (D.C. Cir.), cert. denied, 114 S. Ct. 487 (1993)).

Finally, the Court properly may make its public interest determination on the basis of the Competitive Impact Statement and Response to Comment filed pursuant to the APPA. The APPA authorizes the use of additional procedures, see 15 U.S.C. § 16(f), but their employment is discretionary. If the Department's filings adequately ventilate the issues before the Court, additional proceedings may deter settlements, and thus improperly impair the consent judgment as a frequently used and congressionally approved antitrust enforcement tool. See H.R. Rep. No. 1463, supra, at 8, reprinted in 1974 U.S.C.C.A.N. 6535, 6538-39.; S. Rep. No. 298, supra, at 6-7.

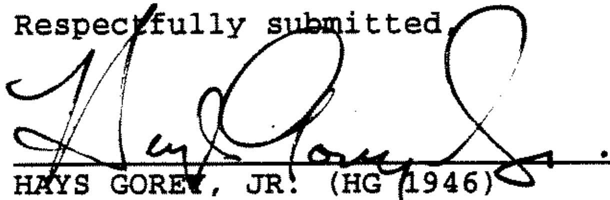
XI.

DETERMINATIVE MATERIALS/DOCUMENTS

No materials or documents of the type described in Section 2(b) of the APPA, 15 U.S.C. § 16(b), were considered in formulating the proposed Order.

Dated: July 17, 1996

Respectfully submitted,



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