

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

LBBW Asset Management Investmentgesellschaft mbH,
on behalf of itself and all others similarly situated,

Plaintiff,

No. _____

v.

JURY TRIAL DEMANDED

CITIBANK, N.A., CITIGROUP INC., CITIGROUP
GLOBAL MARKETS INC., THE GOLDMAN SACHS
GROUP, INC., JPMORGAN CHASE & CO.,
JPMORGAN CHASE BANK, N.A., CREDIT SUISSE
GROUP AG, DEUTSCHE BANK AG, MORGAN
STANLEY BANK, N.A., BARCLAYS BANK PLC,
BANK OF AMERICA CORP., BANK OF AMERICA,
N.A., HSBC HOLDINGS PLC, HSBC BANK USA,
N.A., ROYAL BANK OF SCOTLAND GROUP PLC,
BNP PARIBAS S.A., UBS AG, UBS SECURITIES
LLC, WELLS FARGO BANK & CO., MARKIT
GROUP LTD., AND INTERNATIONAL SWAPS &
DERIVATIVES ASSOCIATION,

CLASS ACTION

Defendants.

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CLASS ACTION COMPLAINT

Plaintiff LBBW Asset Management Investmentgesellschaft mbH (“Plaintiff” or “LBBW”) complains, upon knowledge as to itself and its own acts, and upon information and belief as to all other matters, as follows:

1. Between at least as early as 2006 and the present, Defendants Citibank, N.A., Citigroup Inc., Citigroup Global Markets Inc., the Goldman Sachs Group, Inc., JPMorgan Chase & Co., JPMorgan Chase Bank, N.A., Credit Suisse Group AG, Deutsche Bank AG, Morgan Stanley Bank, N.A., Barclays Bank plc, Bank of America Corp., Bank of America, N.A., HSBC Holdings plc, HSBC Bank USA, N.A., Royal Bank of Scotland Group plc, BNP Paribas S.A., UBS AG, UBS Securities LLC, Wells Fargo Bank & Co., Markit Group Ltd., and International Swaps & Derivatives Association, have entered into a contract, combination or conspiracy to fix, raise, maintain or stabilize their charges and revenues from purchasing, selling and making a market in credit default swaps (“CDS”) in violation of § 1 of the Sherman Antitrust Act, 15 U.S.C. § 1 (the “Sherman Act”). Defendants also entered into a contract, combination or conspiracy to monopolize and did monopolize the CDS market in violation of § 2 of the Sherman Act, 15 U.S.C. § 2.

2. Pursuant to and as part of their unlawful agreement, Defendants have artificially inflated bid-ask spreads (¶ 12) and forced purchasers to pay, and sellers to receive, supra-competitive prices in their transactions with the Dealer Defendants, as defined below.

I. JURISDICTION AND VENUE

3. This action arises under §§ 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1 and 2, and §§ 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15 and 26.

4. This Court has jurisdiction over this action pursuant to §§ 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15(a) and 26, and 28 U.S.C. §§ 1331 and 1337.

5. Venue is proper in this district pursuant to 15 U.S.C. § 15(a), and 28 U.S.C. § 1391(b), (c) and (d). Defendants transacted business in this district, the claims arose in this district, and a substantial part of the events or omissions giving rise to the claims asserted herein occurred in this district.

6. Defendants, directly and indirectly, singly and in concert, made use of the means and instrumentalities of transportation or communication in interstate commerce, or of the United States mails in connection with the unlawful acts and practices and courses of business alleged in this Complaint. The CDS trading alleged in this Complaint had a direct, substantial and reasonably foreseeable effect on U.S. commerce.

II. SUMMARY OF ALLEGATIONS

A. Concentration and Cooperation

7. From the mid-1990s until the present, the Dealer Defendants (¶¶ 43-55) created and cooperatively guided the development of the market for purchasing and selling CDS. *See* ¶¶ 77-87. This extensive cooperative working relationship created a foundation to facilitate anti-competitive communications and acts, thereby making such conduct, as alleged herein, more than plausible.

8. The Dealer Defendants were the leading market-makers or dealers in, and accounted for more than 95% of the dollar amount of, CDS purchases and sales transactions between January 1, 2008 and December 31, 2011 (the “Class Period”).

9. The Defendants, JPMorgan and Citigroup, accounted, by one estimate, for almost 60% of the CDS market. Combined with Bank of America, these three Dealer Defendants handled more than 75% of CDS transactions.

10. The Herfindahl-Hirshman Index (“HHI”) is a measure of the concentration in a business or trade. The Dealer Defendants’ high degree of concentration in the CDS market

constitutes, by one estimate, an HHI of 5000. Because 1800 is a sufficient concentration to indicate potential market power or collusion, the 5000 HHI reading is extremely high and makes the collusion and agreement alleged herein more plausible.

B. Common Motive to Conspire

11. The Dealer Defendants had a common financial motive to conspire as alleged herein.

12. A quoted bid is the price, or amount of basis points per year, at which a market-maker will purchase a given CDS. A quoted ask is the price, or amount of basis points per year, at which a market-maker will sell such CDS. The difference between the quoted bid and the quoted ask is referred to as the bid-ask spread or inside spread. Therefore, if a dealer's quoted ask for a \$10,000,000 CDS with a five-year maturity is 75 basis points, that dealer would receive \$75,000 per year for five years in so-called protection payments (*see* ¶ 65) from the buyer for providing the credit default protection. However, if the dealer's quoted bid for the same CDS is 60 basis points, that dealer would pay \$60,000 per year in protection payments to the seller of the same CDS. In this example, the difference between the quoted bid and the quoted ask is \$15,000 per year over the five-year term. This equates to \$75,000.

13. The spread was the major determinant of the individual and collective revenues that each Defendant and all Dealer Defendants received from their market-making. The greater the bid-ask spreads, the greater the Dealer Defendants' individual and collective revenues were on any given volume of transactions. In the example in ¶ 12 above, if the spread were 5 basis points higher, the Dealer would receive \$100,000 instead of \$75,000 in bid-ask spread revenues. If it were 5 basis points lower, the Dealer would receive \$50,000 instead of \$75,000.

C. High Degree of Inter-firm Communications and Ability to Detect Cheating

14. Pursuant to and as part of their underlying agreement, Defendants cooperatively agreed to and did maintain a high degree of inter-firm communications and shared a large amount of pricing information.

15. These internal communications created an opportunity for the Dealer Defendants to agree with other market-makers to adhere to anti-competitive understandings or agreements concerning CDS transactions.

16. The higher number of Dealer Defendant communications and transactions with one another compared to their communications and transactions with the public reflects the far higher degree of communications they had with one another and the greater number of prices they established with one another than with the public.

D. Highly Unusual Parallel Means of Implementing Conspiracy

17. Pursuant to and as part of Defendants' unlawful contract, combination or conspiracy, Defendants further agreed to deprive Plaintiff and the Class (§ 209) of information which Defendants were required to supply the market regarding contemporaneous execution prices in connection with the trading in the CDS market. Specifically, Defendants are required to report trades to the market within fifteen minutes of execution.

18. This information was required by rule changes implemented during 2002-2009, which were designed to remedy prior opaqueness and/or anti-competitive aspects of the municipal bond and corporate bond markets. Although this structure still gave a fifteen-minute trading advantage to traders before the broader market learned of the new price, the additional information and the resulting increased transparency in the trading of municipal and corporate bonds caused Defendants' spreads in trading in those markets to compress. As a result, these rule changes benefited the transacting public.

19. Many CDS are derived from such sovereign, municipal, county or corporate bonds as their reference obligations. See ¶¶ 64-65. Contemporaneous pricing information would have benefited purchasers and sellers of CDS. In the over-the-counter (“OTC”) CDS market, non-dealer market participants would benefit from actual, real-time CDS transaction data because they would be able to evaluate accurately the economic terms of the CDS contract. In addition, the terms of market transactions would increase the quality of the market for these contracts, in terms of lower costs, including through greater competition between intermediaries and higher liquidity, and would bring greater efficiency to these markets, enriching the information content of the prices and reducing the bid-ask spreads.

20. It would have been in the self-interest of Defendant Markit Group Ltd. (“Markit Group”) to supply greater value pricing information, especially contemporaneous transaction pricing. This is because Markit Group was solely in the business of selling such information and did not provide dealers with market-making services. However, pursuant to its agreements with Dealer Defendants, Markit Group refrained from providing such pricing information. Defendants’ cooperative refusal to provide such contemporaneous price information to Plaintiff and Class members in the derivative market and the bond market makes the collusion alleged herein more than plausible.

E. Prior Antitrust History and Enhanced Common Motive

21. The compression of the spreads in the municipal bond and corporate bond markets served as an extreme object lesson for the Dealer Defendants. They determined that the disconnect between the cash and synthetic market structures was a source for making up the lost revenue. This compression urgently reminded Defendants of earlier losses of market-maker revenues from spread compression when other anti-competitive market-making practices ended

during the mid-1990s. *See In re NASDAQ Market-Makers Antitrust Litig.*, 187 F.R.D. 145 (S.D.N.Y. 1998) (Sweet, J.).

22. Given this litigation and the later Department of Justice (the “DOJ”) action alleging collusion to avoid odd-eighths trading in order to widen spreads, it is more than plausible to allege the Defendants Goldman Sachs, Deutsche Bank, JPMorgan, Credit Suisse, Morgan Stanley, Bank of America and UBS, and their subsidiaries or successors thereof, engaged in similar misconduct. *See United States v. Alex. Brown & Sons, Inc.*, 963 F. Supp. 235 (S.D.N.Y. 1997), *aff’d*, 153 F.3d 16 (2d Cir. 1998).

23. This prior spread compression also increased Defendants’ strong, common financial motive to continue the unlawful agreement alleged herein.

F. Current Government Investigations

24. Defendants are presently under investigation by various governmental bodies, including the DOJ and the European Commission (the “EC”), regarding whether Defendants made an agreement to maintain their control of CDS trading and, therefore, spreads on CDS. This makes the collusion alleged herein more than plausible.

G. The European Commission’s Complaint

25. The EC has served Defendants with what is, in effect, a complaint that alleges that they colluded to maintain control of the CDS market. This also makes the collusion alleged herein more than plausible.

H. Highly Unusual Parallel Acts to Exclude Competitors, Including Through Joint, Collusive Acts

26. Also pursuant to and as part of Defendants’ unlawful agreement, Defendants agreed to and did erect barriers of entry against and otherwise unreasonably excluded from aspects of the CDS market significant potential competitors. These barriers to entry excluded

and unreasonably restrained the Chicago Mercantile Exchange, Inc. (“CME”), Deutsche Börse, CMDX, Bank of New York (Mellon), State Street Trust, and many other potential competitors. See ¶¶ 117-90.

27. For example, Defendants excluded Bank of New York (“BONY”) and many other potential entrants in the New York banking community and elsewhere from ICE Clear Credit. See The Clearing Corp., <http://www.clearingcorp.com/> (“Founded in 1925 as the Board of Trade Clearing Corporation, The Clearing Corporation is one of the oldest independent clearing houses in the world. The Clearing Corporation was acquired by ICE on March 6, 2009, to provide the risk management framework, operational processing, and clearing infrastructure for the ICE Clear Credit (formerly ICE Trust) and ICE Clear Europe credit default swaps (CDS) clearing houses.”) (last visited July 25, 2013). Defendants did so by agreeing to create and maintain capital requirements, including the imposition of a \$5 billion capital requirement for a firm to become an ICE Clear Credit member. See ¶¶ 178-79. Membership in ICE Clear Credit is important because it allows “participants” (ICE’s term for its clearing members) to cross-guarantee one another’s transactions in the event one member is unable to meet its obligation. By being able to lay off counterparty risk to a clearinghouse, participants receive the benefits of netting, capital reductions, and the ability to make trades with better credit standing than may otherwise be possible. If a bank is not a participant, it may be dependent on one of the participants to carry its account and set the parameters for its level of business. Participants can also carry the accounts of customers, so that if a bank is not a participant and it wants to make markets, it must send the customer to a participant, who is a competitor, in order to have their trades cleared.

28. After long-term pressure from the U.S. Commodity Futures Trading Commission (“CFTC”), several banks, and newspapers, as well as the commencement of an EC competition investigation, Defendants finally relented and reduced this barrier to entry by 98%, from \$5 billion to \$100 million.

29. Defendants’ 98% reduction in the capital requirement did not correspond to a 98% reduction in the risks of purchasing CDS. In fact, there was no such reduction in the risks of any amount, let alone a 98% reduction. On the contrary, in 2011 risk was increasing, especially risk of systemic problems in Europe. The 98% reduction in this barrier to entry after the CFTC’s intervention and the announcement of the EC’s antitrust investigation illustrates the unreasonable and anti-competitive purpose of the Dealer Defendants’ former agreement to maintain a \$5 billion capital requirement.

30. This makes the collusion alleged herein more likely. By jointly and collusively preventing new potential competitors from entering into aspects of Defendants’ lucrative market-making for purchasing and selling CDS, the Dealer Defendants continued to cause customers to pay a bid-ask spread to the Dealer Defendants, to maintain wide spreads, and to retain their substantial supra-competitive revenues from market making in CDS.

I. Highly Unusual Parallel and Joint Boycott

31. Also pursuant to and as part of their unlawful contract, combination or conspiracy, Defendants agreed to and did boycott and unreasonably restrain other markets for trading in CDS. This includes the CME market. By such collusive and anti-competitive behavior, Defendants prevented and forestalled the development of a forum of competing bids and asks and lower spreads for CDS because such a forum would have caused reductions in spreads in Defendants’ CDS market.

32. This was especially contrary to the self-interest of Defendants Markit Group and International Swaps & Derivatives Association (“ISDA”) (see ¶¶ 122, 173) because they would have generated more revenues from the increased trading and licensing that the lower spreads and additional markets would have provided. These agreed upon actions and their effects also make the collusion alleged herein more likely.

J. Meetings

33. In order to make and implement their foregoing unlawful agreements, Defendants have met regularly in various contexts, including as members of the ICE Risk Committee to, among other things, set the capital requirement and other barriers to entry. See ¶¶ 131-33; see also ICE Clear Credit, Clearing Rule 503, https://www.theice.com/publicdocs/clear_credit/ICE_Clear_Credit_Rules.pdf (listing members or affiliates of “Bank of America, N.A.; Barclays Bank PLC; Citibank, N.A.; Credit Suisse Securities (USA) LLC; Deutsche Bank AG; Goldman Sachs International; JPMorgan Chase Bank, N.A.; Morgan Stanley Capital Services, Inc. and UBS AG” as participants of the Risk Committee) (last visited July 25, 2013). This also makes the collusion alleged herein more likely.

34. The Dealer Defendants’ CDS traders also have met with one another. See ¶ 132. This also makes the collusion alleged herein more likely.

35. The persons who actually structured each CDS for a Dealer Defendant met with the persons who consistently structured CDS of other Dealer Defendants and discussed, among other things, the positions held by the respective firms on a regular basis.

K. Ability to Detect Cheating on the Agreement

36. The high ratios of market-maker transactions and communications (see ¶¶ 14-16) provided the Dealer Defendants, among other things, with direct information about the amount of business and order flow that each so-called competitor had and was willing to pay or receive.

37. Defendants cooperated collusively to structure the standardized CDS contract so as to provide the ISDA Determination Committee (¶¶ 107-11), which consists of members of the Dealer Defendants, with the capacity to determine whether events of default or other triggering events had occurred.

38. Defendants abused their control of this Determination Committee by exchanging position information and making decisions favorable to the Dealer Defendants and their trading in CDS and other exposures they had, in or related to the reference obligor.

39. When a purchaser sought to negotiate with a Dealer Defendant a price to purchase a CDS contract, there was less transparency as to price, but there was less flexibility to negotiate an improvement in the quoted bid or quoted ask than in other markets.

40. Production is a proxy for detecting cheating on agreements to fix prices for factory-manufactured goods. *See generally* George Stigler, *A Theory of Oligopoly*, 72 J. Pol. Econ. 44 (1964). Defendants' high degree of inter-firm communications and extraordinarily high degree of transactions with each other provided a far better means for policing cheating on the agreement to widen spreads by, for example, reducing its spreads in order to capture more business.

41. As a direct and proximate result of Defendants' antitrust violations as alleged herein, Plaintiff and other Class members have been damaged in their business and property by being forced to pay inflated spreads, thereby overpaying to buy and under-receiving to sell CDS in their transactions with Defendants.

III. PARTIES

A. Plaintiff

42. LBBW is an investment company and wholly-owned subsidiary of the Stuggart, Germany-headquartered Landesbank Baden-Württemberg. LBBW also is based in Stuttgart,

Germany, and employs approximately 150 individuals. LBBW has standing, by virtue of a valid assignment, to assert the federal antitrust claims herein as a direct purchaser and seller of CDS in the United States directly from and to one or more of the Dealer Defendants during the Class Period.

B. Defendants

1. The Dealer Defendants

43. Goldman, Sachs & Co. (“Goldman Sachs”) is a wholly-owned subsidiary of The Goldman Sachs Group, Inc., which is incorporated and headquartered in New York, New York. Goldman Sachs is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the U.S. Securities and Exchange Commission (“SEC”), Goldman Sachs identifies Co-Defendants Bank of America, Citigroup, JPMorgan, and Morgan Stanley as members of its peer group. Goldman Sachs is a shareholder of Markit Group and is represented on Markit Group’s board of directors by Paul Walker. Goldman Sachs is represented on the board of directors of ISDA by R. Martin Chavez and was reportedly represented on ICE’s Risk Committee during the relevant period by Oliver Frankel. Goldman Sachs, together with Morgan Stanley, was a key founding member of ICE through the provision of financial support and assistance to ICE’s CEO and founder, Jeffrey C. Sprecher, in early 2000.

44. JPMorgan Chase & Co. is a Delaware financial holding company that is headquartered in New York, New York. Defendant JPMorgan Chase Bank, N.A. is the principal bank subsidiary of Defendant JPMorgan Chase & Co. Together, JP Morgan Chase & Co. and JPMorgan Chase Bank, N.A. are referred to as “JPMorgan.” JPMorgan is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, JPMorgan identifies Co-Defendants Bank of America,

Citigroup, Goldman Sachs, and Morgan Stanley as members of its peer group. JPMorgan's Diane Genova sits on the board of ISDA and Jeremy Barnum sits on the board of Markit Group. JPMorgan was reportedly represented on ICE's Risk Committee during the relevant period by Thomas J. Benison.

45. Citibank, N.A. ("Citibank") is a wholly-owned subsidiary of Defendant Citigroup Inc., which is headquartered in New York, New York. Citigroup Global Markets Inc. is the brokerage and securities arm of Citigroup Inc. Collectively, Citibank, Citigroup Inc., and Citigroup Global Markets Inc. are referred to as "Citigroup." Citigroup is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Citigroup identifies Co-Defendants Bank of America, Barclays, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, and Morgan Stanley as members of its peer group. Citigroup is a shareholder of Markit Group. It is represented on the board of directors of ISDA by Brian Archer and was reportedly represented on ICE's Risk Committee during the relevant period by Biswarup Chatterjee.

46. Credit Suisse Group AG ("Credit Suisse") is a financial services holding company headquartered in Zurich, Switzerland. Credit Suisse is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Credit Suisse identifies Co-Defendants Bank of America, Barclays, BNP Paribas, Citigroup, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, and UBS as members of its peer group. Credit Suisse is a shareholder of Markit Group. It is represented on the board of ISDA by Eraj Shirvani and was reportedly represented on ICE's Risk Committee during the relevant period by Andy Hubbard.

47. Deutsche Bank AG (“Deutsche Bank”) is a global banking and financial services company headquartered in Frankfurt, Germany. Deutsche Bank is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Deutsche Bank identifies Co-Defendants Barclays, BNP Paribas, Credit Suisse, JPMorgan, and Goldman Sachs as members of its peer group. Deutsche Bank is a shareholder of Markit Group. It is represented on the board of ISDA by Richard Herman and was reportedly represented on ICE’s Risk Committee during the relevant period by Athanassios Diplas.

48. Morgan Stanley Bank, N.A. (“Morgan Stanley”) is a U.S. financial services company headquartered in New York, New York. Morgan Stanley is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Morgan Stanley identifies Co-Defendants Bank of America, Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, and UBS as members of its peer group. Stephen O’Connor, a managing director at Morgan Stanley, is the Chairman of ISDA. Morgan Stanley is a shareholder of Markit Group and is represented on Markit Group’s board of directors by Dexter Emory Senft. Morgan Stanley was reportedly represented on ICE’s Risk Committee during the relevant period by James Hill.

49. Barclays Bank PLC (“Barclays”) is a United Kingdom public company with its corporate headquarters in London, England. Barclays is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Barclays identifies Co-Defendants Bank of America, BNP Paribas, Credit Suisse, Deutsche Bank, HSBC, JPMorgan, and Morgan Stanley as members of its peer group. Barclays is a shareholder of Markit Group. It is represented on the board of directors of ISDA by Harry

Harrison and was reportedly represented on ICE's Risk Committee during the relevant period by Paul Mitrokostas.

50. Bank of America Corporation is a Delaware corporation headquartered in Charlotte, North Carolina. Bank of America, N.A. is a wholly-owned subsidiary of Bank of America Corporation. On January 1, 2009, Bank of America Corporation merged with Merrill Lynch & Co., Inc., assuming its assets and liabilities. Merrill Lynch Bank USA was a wholly-owned subsidiary of Merrill Lynch & Co., Inc., and was a CDS dealer and acted as a counterparty in CDS transactions. Collectively, Bank of America Corporation, Bank of America, N.A., and Merrill Lynch Bank USA are referred to as "Bank of America." Bank of America is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Bank of America identifies Co-Defendants Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, Royal Bank of Scotland, UBS, and Wells Fargo as members of its peer group. It is a shareholder in Markit Group, and Bank of America's Shea Zane Wallon sits on Markit Group's board of directors. Bank of America's Gerhard Seebacher sits on the board of directors of ISDA, and Bank of America was reportedly represented on ICE's Risk Committee during the relevant period by Ali Balali.

51. HSBC Holdings plc ("HSBC Holdings") is a United Kingdom public company, which has its corporate headquarters in London, England. HSBC Bank USA, N.A. ("HSBC USA") is headquartered in McLean, Virginia and is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. HSBC Holdings and HSBC USA are collectively referred to as "HSBC." According to its filings with the SEC, HSBC Holdings identifies Co-Defendants Bank of America, Barclays, BNP Paribas, Citigroup,

Deutsche Bank, JPMorgan, and UBS as members of its peer group. HSBC Holdings is a shareholder of Markit Group and is represented on Markit Group's board of directors by Niall Cameron. HSBC is represented on the board of directors of ISDA by Elie El Hayek.

52. The Royal Bank of Scotland Group plc ("Royal Bank of Scotland") is a United Kingdom company headquartered in Edinburgh, Scotland. Royal Bank of Scotland is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, Royal Bank of Scotland identifies Co-Defendants Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, HSBC, JPMorgan, UBS, and Wells Fargo as members of its peer group. Royal Bank of Scotland is a shareholder of Markit Group.

53. BNP Paribas S.A. ("BNP Paribas") is a French bank headquartered in Paris, France. BNP Paribas is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. BNP Paribas's Guillaume Amblard sits on the board of ISDA, and BNP Paribas is a shareholder of Markit Group.

54. UBS AG is a Swiss financial service company headquartered in Zurich, Switzerland. UBS Securities LLC is a subsidiary of UBS AG and is a registered broker-dealer and futures commission merchant in the United States. Together, UBS AG and UBS Securities LLC are referred to as "UBS." UBS is, and at all material times was, a CDS dealer and acted as a counterparty in CDS transactions in this District. According to its filings with the SEC, UBS identifies Co-Defendants Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, and Morgan Stanley as members of its peer group. UBS is a shareholder of Markit Group. It is represented on ISDA's board of directors by

Christopher Murphy and was reportedly represented on ICE's Risk Committee during the relevant period by Paul Hammill.

55. Wells Fargo & Company ("Wells Fargo") is an American multinational banking and financial services holding company. It is headquartered in San Francisco, California. It acquired Wachovia on December 31, 2008. Wells Fargo is, and at all material times was (and Wachovia was, until it was purchased by Wells Fargo), a CDS dealer and acted as a counterparty in CDS transactions in this District.

2. Other Defendants

56. Markit Group is an international financial information services company based in London, England. It was founded in 2003 to provide daily CDS pricing. It currently has over 3,000 employees and provides independent data, valuations and trade processing of assets. While Markit Group's ownership is not publicly disclosed, it is reportedly owned in part by Dealer Defendants Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, Royal Bank of Scotland, and UBS. As described above, Markit Group is controlled by a board of directors that includes representatives from Bank of America, Goldman Sachs, HSBC, JPMorgan, and Morgan Stanley.

57. ISDA was founded in 1985 and is a trade organization of participants in the market for OTC derivatives. It is headquartered in New York, New York. It created a standardized contract known as the ISDA Master Agreement to enter into derivatives transactions and has more than 820 members in 57 countries consisting of derivatives dealers, service providers and end users. Its members include all of the Dealer Defendants. As described above, representatives from the Dealer Defendants sit on ISDA's board of directors and direct and control it.

IV. NON-PARTY CO-CONSPIRATOR

58. ICE Clear Credit is a subsidiary of the Intercontinental Exchange, Inc. The Intercontinental Exchange, Inc., ICE Trust, and ICE Clear Credit are sometimes collectively referred to herein as “ICE.”

59. Founded in 2000 by Jeffrey C. Sprecher, with the financial support of, among others, Goldman Sachs and Morgan Stanley, ICE is a U.S. commodity exchange that operates regulated exchanges and clearinghouses for agricultural, credit, currency, emissions, energy and equity index products.

60. On or about July 15, 2011, ICE Trust transitioned to ICE Clear Credit under the Dodd-Frank Wall Street Reform and Consumer Protection Act. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 723, 763, 124 Stat. 1376, 1675-76, 1762-63 (2010) (codified respectively at 7 U.S.C. § 2(h) and 15 U.S.C. § 78c-3) (“Dodd-Frank Act”). In 2008, Goldman Sachs and Morgan Stanley enlisted ICE to act as a clearinghouse for their CDS. As discussed above, the Dealer Defendants control members of the Risk Committee of the clearinghouse.

V. AGENTS AND UNNAMED CO-CONSPIRATORS

61. Various other entities and individuals, including, but not limited to, subsidiaries and/or affiliates of the Defendants participated as co-conspirators and manipulators in the acts complained of and performed acts and made statements that aided and abetted and furthered the unlawful conduct as alleged herein. The unnamed co-conspirators, along with the Defendants, performed, participated in, furthered, and/or combined, entered into the contract, combination or conspiracy with others to perform the unlawful acts alleged herein, including the restraint of trade alleged herein.

VI. SUBSTANTIVE ALLEGATIONS

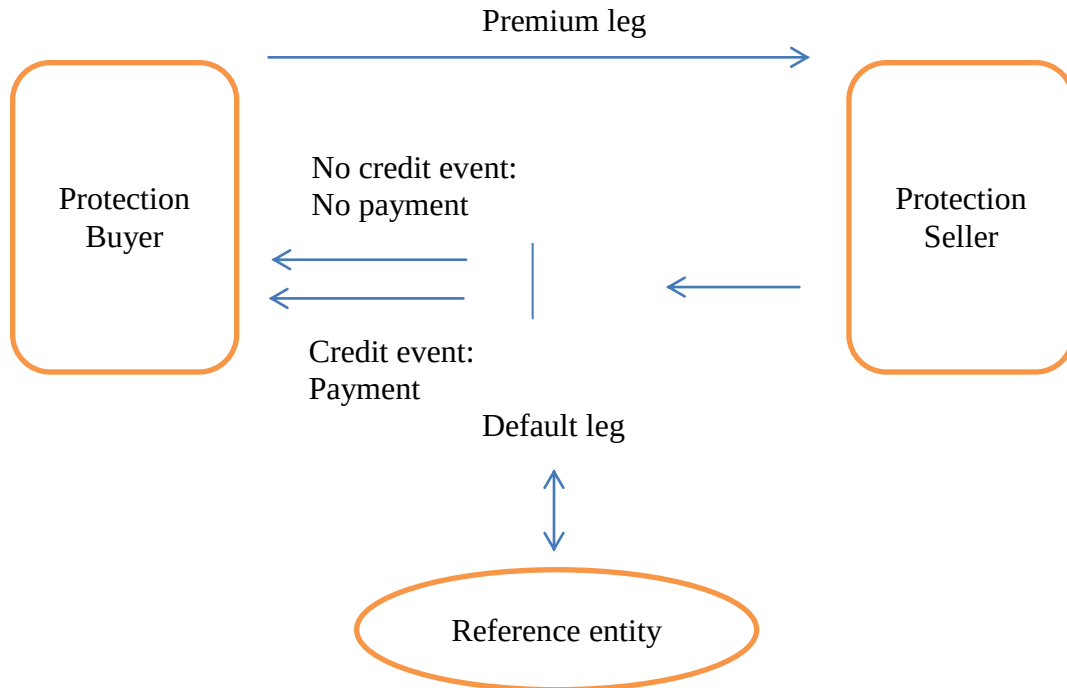
A. Credit Default Swaps and the Inception of Trading CDS

62. Gradually overcoming concerns about regulation under state and federal laws, agreements for forms of CDS came into existence during the early 1990s. Trades were carried out by Bankers Trust (predecessor to Deutsche Bank) in 1991. Defendant JPMorgan is sometimes credited with creating the modern CDS in 1994.

63. Mindful of the concentration of default risk as one of the causes of the Savings & Loan crisis of the 1980s and 1990s, regulators initially found the ability of CDS to disperse default risk attractive because a CDS contract transfers the credit risk of corporate bonds, municipal bonds, other government bonds, other corporate debt, emerging market bonds, mortgage-backed securities, or other credit instruments between two parties.

64. A CDS is a bilateral OTC contract negotiated between two counterparties. A derivative is any financial instrument that “derives” its value from the price movement or behavior of another instrument. In other words, the price of the derivative is not a function of any inherent value, but rather derives from whatever instrument the derivative is tracking. Given its commodity-like nature, purchasers make purchase decisions predominantly based on price.

65. The constructs of a CDS contract are determined by: the reference obligation or reference obligor (the corporation or sovereign entity whose credit risk is transferred); the notional amount (the amount of credit protection traded); the term of the contract (the maturity of the credit protection); the premium or spread (the compensation paid by the protection buyer to the protection seller); the credit events (eventualities suffered by the reference entity that will trigger the contract); and the settlement (once the contract is triggered, the process by which the protection seller compensates the protection buyer for the loss caused by the credit event):



MUTUAL PAYMENT OBLIGATIONS IN A CREDIT DEFAULT SWAP

66. A CDS may reference a single bond or credit obligation or multiple credits, including an index of different credits. Index CDS consist of a portfolio of single name CDS, with a single named CDS carrying equal weight in the portfolio in most indexes. A formed portfolio remains static throughout the life of the instrument. CDS can be broken out geographically and by titles, such as investment grade (IG), high yield (HY), high volatility (HVOL), crossover (XO) and emerging market (EM).

67. The “spread” or “premium” of a CDS is the annual amount the protection buyer must pay the protection seller over the length of the contract, expressed as a percentage of the notional amount.¹ For example, if the CDS spread of a company is 50 basis points, or 0.5% (1 basis point = 0.01%), then an investor buying \$10 million worth of protection from a bank must

¹ Throughout the complaint, the term “spread” is expressed as a percentage of the notional amount rather than as the difference between the bid and ask prices.

pay the bank \$50,000. Payments are usually made on a quarterly basis, in arrears. These payments continue until either the CDS contract expires or the company defaults.

68. A CDS provides the buyer of the CDS, who often owns or is sometimes exposed to the underlying credit, with protection against an event of default (“EOD”) or termination event as defined by the ISDA protocol under which the CDS has been documented and traded. See ISDA CDS Marketplace, *CDS FAQ*, http://www.isdacdsmarketplace.com/about_cds_market/cds_faq (“First, the most commonly included credit event is failure to pay. Second, bankruptcy is a credit event for corporate reference entities but not for sovereign entities. Third, restructuring, which refers to actions such as coupon reduction or maturity extension undertaken in lieu of default, may be included as a credit event for corporate entities. Fourth, repudiation or moratorium provides for compensation after specified actions of a government reference entity and is generally relevant only to emerging market reference entities. And fifth, obligation acceleration and obligation default, which refer to technical defaults such as violation of a bond covenant, are rarely included.”) (last visited July 25, 2013). These are events that can lead to termination of transactions before the intended maturity of the CDS. EODs can be described as events for which a party is at fault, such as failure to perform under a transaction or insolvency. Termination events are other events, such as a *force majeure*, that, although no one is at fault, warrant the early termination of transactions. The seller of the contract assumes the credit risk that the buyer does not wish to shoulder. As compensation for assuming this risk, the seller of the CDS receives from the buyer a periodic protection fee.

69. If a credit event ever occurs, the seller of the CDS keeps these protection payments as compensation for assuming the risk.

70. However, if an EOD (as defined by the CDS terms) occurs, then the seller is obligated to pay in accordance with the CDS contract. The CDS contract is not actually tied to a particular bond, but instead refers to it as the “reference obligation.” It is not necessary for the protection buyer to suffer an actual loss to be eligible for compensation if a credit event occurs.

71. CDS contracts can be physically settled or cash settled if a credit event occurs. In the event of physical settlement, the protection seller pays the buyer par value and, in return, takes delivery of a debt obligation of the reference entity. In the event of a cash settlement, the protection seller pays the buyer the difference between par value and the market price of a debt obligation of the reference entity. The Determination Committee (see ¶¶ 107-11) determines the obligations, such as acceptable deliverable obligations and any substitute reference obligations, if applicable, that may be used to settle, by auction or otherwise, the transaction. Cash settlement with an option for physical delivery has become the market standard. CDS contracts are cash-settled using a price of the defaulted instrument determined by a credit event auction procedure instituted by ISDA in 2005 and administered on behalf of ISDA by Creditex and Defendant Markit Group.

72. Unlike with insurance, CDS are priced to market and the value of the swap reflects the current market value, which can swing sharply and suddenly. At times, value changes may result in the sellers being required to post collateral. Sudden and sharp changes in the evaluation of the credit quality of the issuer of the bonds or of the bonds themselves can produce large swings in the value of the swaps and thus the need to post large, increasing amounts of collateral.

73. CDS documentation has become highly standardized. Defendant ISDA maintains the industry standard of OTC derivative contracts, including the ISDA Master Agreement and a

range of related documentation materials, which counterparties use to specify the terms of and enter into such contracts. The ISDA Master Agreement contains the “non-economic” terms of the transaction (i.e., representations and warranties, EOD, succession and termination events). The counterparties may choose to negotiate only the “economic” terms, such as rate or price, notional amount, maturity, and collateral. The ISDA Master Agreement includes provisions that facilitate payment netting and close-out netting.

74. Most CDS are documented using standard forms drafted by ISDA, although there are many variants. Single-name CDS account for the traditional and most common form of CDS; they are referenced to an individual corporate or sovereign borrower. Index CDS use an index of debtors as a reference entity, incorporating up to 125 corporate entities. Tranched index CDS are referenced to a specific segment of the index’s loss distribution. The structure of a loan CDS (*see* ¶ 75) is the same as that of a regular CDS, except that the underlying reference entity is limited strictly to secured loans.

75. **Loan Credit Default Swap.** A loan credit default swap (“LCDS”) is a type of credit derivative in which the credit exposure of an underlying loan is swapped between two parties. The structure of an LCDS is the same as a regular CDS, except that the underlying reference entity is limited strictly to syndicated secure loans, rather than any loan or bond. An LCDS consists of buying or selling protection on an issuer’s debt, but, unlike the traditional CDS, the deliverable debt being protected against is syndicated secured debt brought to market by a syndicate of banks. The LCDS protection buyer typically protects itself against the risk of loss resulting from two types of default: a borrower’s bankruptcy or payment default. The related index product, the North American Loan Credit Default Index (“LCDX”), is a specialized index of LCDS covering 100 individual companies that have unsecured debt trading in the broad

secondary market. LCDS uses standardized documentation. Buyers of protection pay a fixed coupon agreed at the time of trade and receive compensation on the principal (not accrued) if the reference entity on the contract defaults on its secured debt. The compensation will be par minus recovery either by way of the protection seller paying par in return for gaining possession of the loan or by way of cash settlement. Defendants Credit Suisse, Deutsche Bank, and Morgan Stanley, among others, trade in the LCDS market.

76. Today, \$30 trillion of CDS (net amount outstanding is in the low hundreds of billions of dollars) are traded annually. Defendants are the largest CDS dealers in the world. Defendants exercise market power in the CDS market, controlling over 95% of the U.S. market by notional amount, and they earn approximately \$8-11 billion per year from CDS. The transaction volume of certain industry participants is huge (e.g., Bank of America – \$30.8 trillion, Citigroup – \$22.3 trillion, Goldman Sachs – \$6.6 trillion, JPMorgan – \$56.6 trillion, Morgan Stanley – \$189 billion). Between 2008 and 2010, \$116 trillion in CDS were bought and sold. Over 90% of all CDS transactions (notional value) were bought and sold by U.S. banks during this two-year period.

B. Defendants’ Creation of the CDS Market

77. Between the mid-1990s and 2005, the Dealer Defendants developed the market for trading CDS. CDS trading was derived from corporate bond trading.

78. In May 1994, class action claims alleged that National Association of Securities Dealers Automated Quotation (“NASDAQ”) system market-makers – many of whom are Defendants herein – conspired to widen the spreads in market making for NASDAQ equity securities, including through a convention among brokers not to quote “odd eighths” on certain securities. *See In re NASDAQ Market-Makers Antitrust Litig.*, 187 F.R.D. 145 (S.D.N.Y. 1998). The case also challenged the transparency of trading activity to the public and access to the

different levels of information on trading screens. Similar conduct is at issue here, as Markit Group is required to wait ten to twenty minutes before sending out data to its subscribers.

79. This delayed information is less valuable and facilitates an unlevel playing field, as the lag in dissemination of transactional information permits Defendants to quote prices different from their price indication in response to customer inquiries. Conversely, Markit Group provides real-time trading information to Defendants. Defendants also have used technology to alter messaging systems such as Bloomberg to make it difficult to forward information. Defendants even have gone so far as to claim they own Bloomberg message information such that it cannot be disseminated without their prior consent, which they have refused to grant. Further, at least through the end of 2011, Bloomberg price points shown in the screen for CDS was based on voluntary data submissions by broker-dealers, giving broker-dealers the power to control prices shown to the market.

80. The NASDAQ system is a computerized securities quotations system operated by the National Association of Securities Dealers (“NASD”), which makes collusion easier to detect in this case. *See* Ex. 1 hereto.

81. On July 17, 1996, the DOJ simultaneously brought and settled charges against twenty-four major NASDAQ firms – many of which are now Defendants herein – bringing to a halt the industry-wide practice challenged in *In re NASDAQ Market-Makers Antitrust Litigation*, which fixed transaction costs for investors who bought and sold stocks on the NASDAQ market. *See id.*

82. In 1998, the U.S. District Court for the Southern District of New York granted approval of class action settlements for \$1,027,000,000 by and between the market-makers and the class therein on claims relating to the width of spreads.

83. During the late 1990s, follow-on regulations by the SEC caused a further narrowing of spreads in the NASDAQ market.

84. By 1999, Defendants, through Defendant ISDA, had standardized the documentation and terms for CDS.

85. Mindful of the compression of spreads in the NASDAQ securities, by 2000 Defendants had largely won exemption of CDS from regulation by both the SEC and the CFTC. Specifically, the Commodity Futures Modernization Act of 2000, Pub. L. No. 106-554, 114 Stat. 2763 (2000), which also was responsible for the “Enron loophole” that exempted most OTC energy trades and trading on electronic energy commodity markets from government regulation, specifically stated that CDS are neither futures nor securities and therefore are outside the remit of the SEC and CFTC.

86. Ensconced in this pocket of non-regulation, Defendants had a financial incentive and greater ability to control, and did control the development of, the market for trading CDS. The wide spreads were lucrative for Defendants and incentivized them to grow the CDS market.

87. The Dealer Defendants illegally agreed to create and maintain the CDS trading market, which ensured that: (a) at least one of them was a participant in *every single* CDS transaction; (b) no one outside of the Dealer Defendants was a significant competitor with Defendants in purchasing or selling CDS; (c) the Dealer Defendants had access to extensive information about pricing that non-market-makers did not have; and, especially, (d) the many hedge funds, bond funds and other institutions who were buying or selling CDS did not become competitors of the Dealer Defendants.

C. Operation of CDS Market

88. Under the CDS Market, as created and maintained by the Dealer Defendants, a member of the public, a so-called non-dealer, “buy-side” participant, gives a CDS dealer a

request for a quote and/or an indication of interest (“IOI”) in specific CDS. An IOI is non-binding and does not force the party expressing an interest to act (i.e., trade) on it. A buy-side CDS market participant must enter into a master swap agreement, typically an ISDA Master Agreement, with a dealer to enter into transactions with that dealer.

89. The Dealer Defendant quotes a bid (to a customer who wishes to sell) or an ask (to a customer who wishes to buy).

90. The Dealer Defendants disseminate CDS transaction prices, usually by means of “indicative runs,” for various CDS to its buy-side CDS market participants. An indicative run reflects the economic terms, including rates or prices. *See* ¶ 73.

91. In a typical OTC derivative transaction, the counterparties negotiate the economic terms of the transaction. Quotes and negotiations of execution prices are generally conducted by telephone, email and/or instant messaging. The counterparties may then orally agree to the terms of the CDS. Once the CDS dealer and the buy-side CDS market participant agree on the terms of the CDS, they will confirm the terms of the trade and refer to the executed ISDA Master Agreement.

92. In the OTC CDS market, non-dealer, buy-side market participants have limited information to evaluate quotes provided by Dealer Defendants because Defendants have singly and in concert prevented such participants from obtaining actual, real time bid-ask and transaction data. Instead, such participants have access only to non-contemporaneous end-of-day dealer marks (valuations) and aggregated data from Defendant Markit Group.

93. The counter-parties have an oral commitment when they reach agreement on the terms of the CDS transaction such as price and size (the notional amount). *See* ¶ 73.

94. Trade confirmations are executed after the execution of the transaction, over the telephone or by messaging or chat, which reference the relevant ISDA documentation for the purposes of cross reference.

95. After a purchase or sale is negotiated, the Dealer Defendant seeks to take the opposite position. Dealers have direct phone lines between themselves and other dealers and are able instantaneously to communicate actual CDS transaction data with each other. A large proportion of transactions is done between dealers themselves to hedge trades done with clients or for other risk management purposes and as outright bets by the dealer's desk. Indeed, dealer-to-dealer transactions account for approximately 80% of all open positions in the CDS market. Dealers also act as market-makers and provide liquidity to buy-side clients.

96. As a market-maker, a dealer may buy or sell a particular CDS in order to profit from the bid-ask spread (the difference between the price at which the market-maker is willing to buy the CDS and the price at which it is willing to sell the CDS). The bid-ask spread is a major source of revenues from market making in CDS and a substantial portion of the cost to non-dealers in CDS transactions. The greater the bid-ask spreads, the greater the Dealer Defendants' individual and collective revenues on any given volume of transactions.

97. As of December 2011, the notional outstanding value of all CDS totaled \$29 trillion, with multi-name/index CDS totaling \$12 trillion (18% cleared) and single-name CDS totaling \$17 trillion (8% cleared). The credit derivatives market is exclusively an inter-dealer market, with CDS clearing at about \$3.9 trillion of notional (12% of notional outstanding), which is virtually all dealer-to-dealer trades. ICE is the major player in this space, clearing CDS indices and some highly liquid single-name CDS for dealers in the United States and Europe.

98. The Dealer Defendants obtain significant advantages over members of the public with whom they transact in CDS contracts. The CDS dealer typically provides indicative runs by telephone, through use of electronic bulletin boards or other means where only the two market participants directly observe the quotes or execution. From a regulatory point of view, the bilateral trading arrangement is traditionally not considered a trading facility because it is not multilateral.

99. Accordingly, during the Class Period, the Dealer Defendants controlled the flow of market data and information, and CDS prices in the OTC market were opaque for public, non-dealer market participants. The Dealer Defendants did not make actual, real-time pricing data available to buy-side CDS market participants.

100. From 2000 onward, the market size for CDS more than doubled in size each year until, by the end of 2007, the CDS market had ballooned almost 100-fold within seven years to represent a notional value of \$62.2 trillion.

D. Transparency Enhancements in the CDS Market?

101. In July 2002, the National Association of Securities Dealers introduced the Trade Reporting and Compliance Engine (“TRACE”) in an effort to increase price transparency in the U.S. corporate debt market. The eventual implementation of TRACE by the Financial Industry Regulatory Authority, Inc. (“FINRA”) provided much greater information from broker/dealers, including under the SEC Rule 6200 Series.

102. In 2003, Defendant ISDA published the 2003 ISDA Credit Derivatives Definitions (the “2003 Definitions”), replacing the 1999 Definitions, which are the standard contractual documentation for credit derivatives. The ISDA Master Agreement was revised with specific regard to CDS contracts (the “Master Confirmation Agreement on Credit Default Swaps”). ISDA defined a format for trade confirmation and standardized legal documentation

predefining various optional variables and information such as reference entity, nominal value, maturity date, agree premium/coupon, credit event trigger and contract liquidation procedure in case of a credit event.

103. In 2005, the Municipal Securities Rulemaking Board (“MSRB”), the primary regulator of the municipal market, began operating the Electronic Municipal Market Access (“EMMA”) system. This provides a comprehensive, centralized online source for free access to, among other things, market transparency data. EMMA also provides real-time prices and yields at which bonds and notes are bought and sold, for most trades occurring on or after January 31, 2005.

104. After respective implementations of the MSRB and FINRA requirements of increased transparency, the effective spreads in the municipal and corporate bond markets plummeted significantly.

105. In 2009, Defendant ISDA published the 2009 Credit Derivatives Determination Committees and Auction Settlement Supplement to the 2003 ISDA Credit Derivatives Definitions (the “2009 Supplement”) and the related 2009 ISDA Credit Derivatives Determination Committees and Auction Settlement CDS Protocol (the “Protocol” or “Big Bang Protocol”). The 2009 Supplement: (a) established the Credit Derivatives Determination Committees and incorporated the resolutions of the determination committees into the 2003 Definitions, making binding determinations for issues such as whether a credit event has occurred, an auction would be held, or a particular obligation was deliverable; (b) added auction settlement as a settlement method to eliminate the need for credit event protocols to cash settle CDS transactions; and (c) added credit event (and removed restructurings as a credit event) and

succession event “look back” provisions (or backstop dates) into the CDS documentation that instituted a common standard effective date for CDS transactions.

106. Contemporaneous with the publication of the 2009 Supplement and the Big Bang Protocol, the credit derivatives industry adopted new trading conventions for Standard North American Corporate (“SNAC”) CDS transactions. The majority of CDS traded around the world are highly standardized, and most of the CDS traded in the United States conform to SNAC conventions, which are ISDA specifications standardizing CDS terms and allowing for five variables (reference entity, upfront payment amount, notional amount, maturity and currency). ISDA facilitated trading in the new standards by amending applicable form documentation and by publishing an updated physical settlement matrix to apply to future contracts, known as “100/500” contracts.

1. Defendant ISDA’s Determination Committees

107. Defendant ISDA’s Determination Committees have immense power in the CDS market. When a credit event occurs, the Determination Committee, upon request of a filer, decides, *inter alia*, whether an EOD, succession, or a restructuring has actually occurred. These three categories have very different outcomes for a CDS contract. As a general matter, under the 2009 Protocol, if the Determination Committee finds an EOD, then the CDS protection seller is obligated to pay the claim (less the recovery amount or deliverable obligation). If the Determination Committee finds a succession, then the CDS contract will succeed to a new obligor, the successor-in-interest to the previous obligor. If the Determination Committee finds a restructuring, then, depending on the underlying protocol, a CDS protection seller may not be obligated to pay any claim. In the case of CDS contracts using the 2009 Protocol, the CDS protection seller is not obligated to pay any claim. In the case of CDS contracts using the 2003 Protocol, the CDS protection seller is obligated to pay the claim.

108. Defendant ISDA's Determination Committees are structurally flawed. This structure gives the voting Dealer Defendants immense power and the opportunity to create credit event outcomes favorable to their own trading position and exposure. Indeed, there have been frequent criticisms that the Determination Committees do not have a robust and transparent process in place for determining credit events and that their members are likely to vote in their own self-interest. Furthermore, although there are supposed to be information barriers between the individuals who sit on the Determination Committees, there is concern from some industry members that these barriers are not always respected in practice.

109. For example, in the context of the bankruptcy of AbitibiBowater, some creditors, including Citigroup, which held a small exposure to AbitibiBowater, hedged themselves in the CDS market. These creditors' positions meant they were either interested or neutral in seeing AbitibiBowater have an EOD. The Determination Committee, of which Citigroup and other Dealer Defendants were members, determined that AbitibiBowater had experienced an EOD in April 2009. The members of the Determination Committee made their determination collusively to advantage their own trading positions. *See Christopher Mason, AbitibiBowater files for bankruptcy protection*, Financial Times (Apr. 16, 2009), <http://www.ft.com/intl/cms/s/0/e41cde06-2ab0-11de-8415-00144feabdc0.html#axzz2ZmOOrIw6> (subscription).

110. Similarly, the International Financing Review criticized the SEAT Pagine Gialle vote in November 2011, stating that the participants did not vote based on legal arguments but rather on what would benefit their firms. *See Market experts critical of recent ISDA credit event decision*, FinancialCAD Corp. (Dec. 12, 2011), <http://derivative-news.fincad.com/derivatives-news/market-experts-critical-of-recent-isda-credit-event-decision-1671/>.

111. The current voting members of the Determination Committees for the Americas, and for Europe, Middle East and Africa, are listed below:

(a) Americas – Determination Committee

(i) Voting Dealers: Bank of America N.A.; Barclays Bank plc; BNP Paribas; Citibank, N.A.; Credit Suisse International; Deutsche Bank AG; Goldman Sachs International; JPMorgan Chase Bank, N.A.; Morgan Stanley & Co. International plc; and UBS AG.

(ii) Consultative Dealers: Nomura International plc and Société Générale.

(iii) Voting Non-Dealers: BlueMountain Capital Management, LLC (Second Term Non-dealer); Citadel LLC (First Term Non-dealer); D.E. Shaw Group & Co., L.P. (First Term Non-dealer); Elliott Management Corporation (Third Term Non-dealer); Pacific Investment Management Co., LLC (Second Term Non-dealer).

(iv) Consultative Non-Dealer: Saba Capital Management, L.P.

(v) CCP Members: ICE Clear Credit LLC.

(b) EMEA (Europe, Middle East, and Africa) – Determination Committee

(i) Voting Dealers: Bank of America N.A.; Barclays Bank plc; BNP Paribas; Citibank, N.A.; Credit Suisse International; Deutsche Bank AG; Goldman Sachs International; JPMorgan Chase Bank, N.A.; Morgan Stanley & Co. International plc; and UBS AG.

(ii) Consultative Dealers: Nomura International plc and Société Générale.

(iii) Voting Non-Dealers: BlueMountain Capital Management, LLC (Second Term Non-dealer); Citadel LLC (First Term Non-dealer); D.E. Shaw Group & Co., L.P. (First Term Non-dealer); Elliott Management Corporation (Third Term Non-dealer); and Pacific Investment.

(iv) Consultative Non-Dealer: Saba Capital Management, L.P.

(v) CCP Members: ICE Clear Europe Limited and LCH.Clearnet S.A.

2. Public Sources of CDS Market Data

112. Data about the CDS market is available from three main sources. Data on an annual and semiannual basis has been available from ISDA since 2001 and from the Bank for International Settlements (“BIS”) since 2004. The Depository Trust & Clearing Corporation (“DTCC”), through its global repository, Trade Information Warehouse, provides weekly data with publicly available information going back one year. *See The Depository Trust & Clearing Corp., H. Comm. on Financial Services* (Testimony of Don Donahue, Chairman and Chief Executive Officer), Feb. 15, 2011, at 2, *available at* http://www.dtcc.com/downloads/news/testimony_donahue_feb2011.pdf (“DTCC is a non-commercial industry ‘utility’ that, through its subsidiaries and affiliates, provides clearing, settlement and information services for virtually all U.S. transactions in equities, corporate and municipal bonds, U.S. government securities and mortgage-backed securities and money market instruments, as well as a significant portion of the global over-the-counter . . . derivatives market. In 2010, The Depository Trust Company . . . , a wholly-owned subsidiary registered as a clearing agency under the Securities Exchange Act of 1934 . . . , settled more than \$1.66 quadrillion in securities transactions.”).

113. Dealer Defendants exercised their control over DTCC to prevent it from publishing actual CDS transaction data. DTCC, through DTCC Deriv/SERV LLC and The Warehouse Trust Company LLC, provides automated repository and asset servicing for OTC

credit derivatives, and post-trade processing services, including matching of payment flows and bilateral netting services. DTCC collects transactional data but only provides aggregated information in its repository to the public on a weekly basis.

114. Defendants, through DTCC's board members, including Mark Alexander of Bank of America, Neeraj Sahai of Citigroup, Jonathan Hitchon of Deutsche Bank, Robin Vince of Goldman Sachs, David Weisbrod of JPMorgan, and Stephen Daffron of Morgan Stanley, prevented DTCC and its subsidiaries from publishing CDS transaction data.

115. The Office of the Comptroller of the Currency ("OCC") also publishes quarterly credit derivative data about insured U.S. commercial banks and trust companies.

116. Notably, however, Dealer Defendants contemporaneously observe the order flow (pre-trade) and transaction information (post-trade) for their own customers.

E. Defendants Have Excluded Competitors

117. Clearing derivatives trading is the procedure by which an organization acts as an intermediary and assumes the role of a buyer and seller for transactions in order to reconcile orders between transacting parties. It involves keeping track of trades and providing a central repository for money backing those transactions. The central counterparty ("CCP") also ensures financial performance should a counterparty to the transaction default. In essence, the members of the CCP cross-guarantee their respective CDS obligations. The Dealer Defendants acted, singly and in concert, to exclude potential market entrants by limiting and/or denying access to standard industry licenses and agreements, limiting access to clearing, and imposing prohibitive capital requirements, among other practices, in order to maintain control over trading in the CDS market.

118. In 2009 Citadel and CME created the "CMDX" to compete as a clearinghouse. (CMDX is an open-architecture electronic trading and migration platform developed by CME

Group and Citadel Investment Group to trade CDS.) Those within the industry expected competition on the merits between the CMDX and existing clearinghouses, but CMDX faced deliberate and concerted opposition from Defendants.

119. On June 1, 2009, Samuel Cole of New York-based Blue Mountain Capital Management LLC, a partner with Citadel and CME, prepared a memorandum entitled “Note to Dealers” documenting the obstructionist tactics in which Defendants engaged to prevent competition from a clearing and exchange entity. The memorandum charged the dealer banks with a variety of anti-competitive acts such as “dissembling and obfuscation.” Cole further accused Defendants of “oligopolistic dominance” of most major market structures in the credit markets. He also stated that the “dealer community may be filibustering to protect its oligopoly and not seriously engaged in working with the Buyside to develop a clearing solution.” See Karen Brettell, *Bank ‘oligopoly’ slows CDS clearing-BlueMountain*, Reuters (Jun. 1, 2009), <http://www.reuters.com/article/2009/06/01/credit-clearing-idUSN0113168020090601>.

120. Dealer Defendants used their control over Defendants Markit Group and ISDA to frustrate and defeat competition from CMDX. CMDX tried to work with Markit Group as it possessed intellectual property rights to the most frequently traded CDS indices. Markit Group, however, allowed CMDX only to handle trades that involved at least one dealer bank, effectively securing a permanent role for the Dealer Defendants. This policy gave Defendants the ability to control which CDS trades occurred and were cleared by CMDX.

121. Absent a license from Defendant Markit Group, CMDX could not freely and effectively compete. Accordingly, CMDX reached an agreement with Markit Group in the spring of 2009 that allowed it to act as a clearing platform, but no license was given by Markit Group to CMDX for exchange trading. The protracted negotiations between Markit

Group/ISDA and CMDX delayed CMDX's launch and gave ICE a tactical advantage in the market.

122. Notably, Defendant ISDA's denial of certain licenses was against its own economic self-interest. The execution of a Master Agreement with Citadel/CME likely would have resulted in ISDA gaining increased licensing revenues.

123. In the fall of 2009, CMDX was forced to change into a clearing-only service, and "the [electronic] trading platform was quietly killed because . . . Citadel wanted to 'trade within the current market spreads.'" Suzanne Miller, *CDS Clearinghouses challenge Wall Street rules*, MarketWatch (Jun. 9, 2010), <http://www.marketwatch.com/story/cds-clearinghouses-challenging-wall-street-2010-06-09>.

124. In December 2011, *The New York Times* reported that two people with knowledge of the CME clearinghouse stated that the Dealer Defendants refused to become involved with CME unless it dismissed Citadel and the electronic trading plan. The Dealer Defendants took this step to avoid competition by an electronic CDS exchange that could have caused greater price transparency and competition in the market resulting in tighter bid-offer spreads and lower profits for Defendants. The absence of competition caused by Defendant Dealers deprived persons purchasing CDS of tens of billions of dollars.

F. The Formation of ICE and Related Transactions Involving the Dealer Defendants

125. CDS trades involve future performance by both parties for a specific maturity period or contract term, varying from one to ten years, but in most cases five. During this period the buyer agrees to pay a premium and the seller agrees to pay a notional value if a credit event occurs. A "counterparty default" occurs if a buyer is unable to make a premium pursuant to the contract or if the seller is unable to pay should a credit event occur. Because of these risks,

parties with less capital are at a disadvantage as customers may not be willing to trade in large volumes with them.

126. Clearinghouses are typically used in the securities market to reduce risk, promote stability and manage transactional flow. Clearing mitigates the risk by substituting the clearinghouse, which is backed by a financial network of cross-guaranties among the clearing member firms, for every buyer and seller. As a result, the buyer of a CDS contract is not at risk for a failure to perform by its original counterparty, including paying out for a credit event. Instead, it is the clearinghouse that is the counterparty providing guaranties of financial performance.

127. Defendants Goldman Sachs and Morgan Stanley are key founding members of ICE. Goldman Sachs, Morgan Stanley and several other major players in the financial and energy industries provided financial support and assistance to Jeffrey Sprecher in early 2000, enabling him to launch ICE. In turn, Goldman Sachs, Morgan Stanley, and the other initial investors were able to secure an early foothold in the then-nascent electronic commodities, cash, and derivatives trading markets. Over the ensuing decade, the investment has proved to be very lucrative to all parties.

128. In 2008, Goldman Sachs and Morgan Stanley enlisted ICE to act as a clearinghouse for their credit default swaps. In July 2010, *Business Week* commented on ICE's close relationship with many of the Dealer Defendants: "Whether [ICE's] clearinghouse, so finely tailored to the interests of the major banks, contributes to a safer, more transparent financial system is a matter of contention." Chad Terhune, *ICE's Jeffrey Sprecher: The Sultan of Swaps*, *BusinessWeek* (Jul. 28, 2010), <http://www.businessweek.com/stories/2010-07-28/ices-jeffrey-sprecher-the-sultan-of-swaps>.

129. Goldman Sachs, along with JPMorgan, Citigroup and Bank of America, account for nearly 95% of all derivatives exposure in the United States and have a “large influence over ICE.” Stephen Gandel, *Why the NYX merger may hurt average investors*, CNNMoney (Jan. 7, 2013), <http://finance.fortune.cnn.com/2013/01/07/new-york-stock-exchange-ice-merger/>.

130. Defendants Goldman Sachs, JPMorgan and Morgan Stanley – who with others have formed a powerful committee that oversees trading in derivatives, including CDS – are affiliated with Defendant ISDA, Defendant Markit Group and ICE, and have, singly and jointly, fought to block other potential market entrants from entering the CDS market.

131. The Dealer Defendants have influenced, and continue to influence, the rules governing derivatives through: a variety of industry participants, including Defendant ISDA, Defendant Markit Group, and ICE; various practices, including membership on the boards of directors of such participants, limiting and/or denying access to standard industry licenses, protocols and agreements; and secretive and surreptitious conduct, such as monthly meetings among key CDS traders, business managers and structurers in New York City.

132. Defendants regularly engaged in communications that facilitated their conspiracy through their membership in Defendant Markit Group, Defendant ISDA, ICE, and DTCC. *See* ¶¶ 43-57, 58, 105, 111, 114, 127, 130-31, 165. In fact, the key boards of directors and constituent committees of those institutions are comprised of the same members generally, are dominated by the Dealer Defendants, and regularly hold private meetings.

133. With regard to the inherent ICE problem, in December 2008 the DOJ explained that “[t]he creation of such a platform would be roughly analogous to the three or five largest airlines controlling all landing rights at every U.S. airport – the big carriers could use this control to disadvantage smaller carriers by restricting landing rights or raising their rivals’ costs to

access the airports.” Comments of the U.S. Dep’t of Justice, *In the Matter of: RIN 3235-AK47*, SEC File No. S7-27-10 (Dec. 28, 2010), <http://www.justice.gov/atr/public/comments/265620.htm>. Dealer Defendants, during 2009-2010 and at other times, jointly organized lobbying of the SEC, CFTC and Congress in order to save the CDS market. *See, e.g., SEC-CFTC Joint Conference Call with Representatives of the Dealer Industry*, SEC (Aug. 17, 2010), <http://www.sec.gov/comments/df-title-vii/definitions/definitions-4.pdf>. These efforts involved, among others, Athanassios Diplas of Deutsche Bank (now an adviser to ISDA) and Biswarup Chatterjee of Citigroup.

1. Limiting Access to Standard Industry Licenses, Agreements and Data Provision

134. During 2008, Citadel Group, a hedge fund that oversees over \$11 billion in assets, proposed open pricing for commonly traded derivatives by quoting prices electronically. Citadel’s proposal for an electronic exchange was opposed by the Dealer Defendants because, among other things, electronic trading would connect customers directly with each other, cutting out the Dealer Defendants as intermediaries.

135. In response to CME’s setting up its own clearinghouse, the Dealer Defendants paired with ICE, one of CME’s rivals. Under their agreement, ICE’s clearinghouse would merge with a nascent clearinghouse that the Dealer Defendants were establishing.

136. The Dealer Defendants attached a number of conditions on that partnership, including requiring ICE to install the chief executive of the Dealer Defendants as the head of the joint effort. That executive, Dirk Pruis, left after about a year and began working at Defendant Goldman Sachs. These conditions gave the Dealer Defendants significant power at ICE’s clearinghouse.

137. The Dealer Defendants dominate ISDA's leadership through seats on its board of directors, chaired since June 2013 by Stephen O'Connor, a former managing director of Defendant Morgan Stanley. Defendant ISDA's board of directors also includes Gerhard Seebacher of Bank of America, Harry Harrison of Barclays, Guillaume Amblard of BNP Paribas, Brian Archer of Citibank, Eraj Shirvani of Credit Suisse, Richard Herman of Deutsche Bank, R. Martin Chavez of Goldman Sachs, Elie El Hayek of HSBC, and Diane Genova of JPMorgan.

138. Use of certain of Defendant ISDA's Master Agreement terms, which have become industry standard, and access to ISDA credit auction protocols were critical to operating CMDX.

139. Significantly, the use of the existing ISDA Master Agreement would permit exchange-traded CDS to reflect market conventions and practices, including the adoption of ISDA Credit Derivatives definitions, adherence to decisions of the ISDA's Determination Committees, and settlement to the ISDA auction settlement price. ISDA would benefit from participating in the launch of CMDX because ISDA would obtain licensing revenues from the increased volume of transactions and market participants generated by exchange trading.

140. The Dealer Defendants agreed, however, to deny CMDX the licenses from Defendants Markit Group and ISDA needed to operate an exchange.

141. The Dealer Defendants also required ICE to provide market data exclusively to Defendant Markit Group, a little-known company that plays a pivotal role in derivatives. Backed by Defendant Goldman Sachs, Defendant JPMorgan, and several other Dealer Defendants, Defendant Markit Group provides crucial information about derivatives, such as pricing information.

142. Dealer Defendants exercised their control over Defendant Markit Group and other potential CDS transaction data providers to block the release of actual, real-time data to non-dealer, buy-side market participants. As a result, such buy-side market participants are unable to determine and evaluate their CDS transactions based on real-time market data regarding transactions by other market participants.

143. Defendant Markit Group's business decisions are made by its board of directors, which is controlled by the Dealer Defendants, including Defendants Bank of America, Barclays, BNP Paribas, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, Royal Bank of Scotland, and UBS.

144. Although the Dealer Defendants were working with ICE, Citadel and the CME continued to move forward with their exchange (i.e., CMDX) because they had to work with Defendant Markit Group, which owns the rights to certain derivatives indices.

145. Defendant Markit Group insisted, however, that every trade involve at least one of the Dealer Defendants because these Defendants are the main parties that have licenses with Markit Group.

146. This demand from Defendant Markit Group effectively secured a permanent role for the big derivatives Dealer Defendants because Citadel and the CME could not move forward without Markit Group's agreement. As a result, Citadel and the CME agreed to the terms.

147. Although CMDX eventually obtained licenses from Defendants Markit Group and ISDA in or about March and April 2009, the licenses were for a clearing platform only. CME announced that CMDX would be restructured as a clearing-only service, later renamed CME Clearing. Citadel, which the market understood had built the exchange, was no longer a joint venture partner and remained merely a founding member of the newly restructured

clearing-only entity. Other buy-side founding members included AllianceBernstein, BlackRock, BlueMountain Capital Management, the D.E. Shaw Group and PIMCO. The dealer, or sell-side, founding members were Barclays, Citibank, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley and UBS.

148. The Dealer Defendants then undermined CME Clearing by agreeing to delay, intentionally and unreasonably, the licensing negotiations between CME Clearing and Defendants Markit Group and ISDA, while also working to launch their own clearinghouse – ICE Trust (now ICE Clear Credit). The Dealer Defendants launched ICE before CME or any other rival began clearing, thus effectively controlling clearinghouse form.

149. The vast majority of CDS transactions are cleared through ICE, which allows the Dealer Defendants to maintain their control of the CDS market, perpetuate their monopoly, and frustrate reform and regulation.

150. The Dealer Defendants limited any independence of the CME's clearinghouse. On or about December 3, 2009, Defendants Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley, and UBS, each of whom had executed a non-binding term sheet with respect to CME's CDS initiative, became members of the CME clearinghouse. The Dealer Defendants became members of the CME's clearinghouse to exert a measure of control over it by limiting which market participants could become members.

151. Simultaneously, the Dealer Defendants also directed nearly all of the CDS they cleared through CME's competitor, ICE. Thus, the CME clearinghouse had a minimal role in the CDS market, a minimal amount of price data and a limited ability to support substitute models apart from that of the Dealer Defendants.

152. On December 15, 2009, CME cleared the first buy-side CDS trade, but the group of dealer founding members suspended CME's ability to clear CDS trades by instituting an extremely low aggregate open interest level based upon the pretext that additional work was required to design CME's margining methodology for CDS. (ICE reportedly processed its first bank customer swap trade the prior day.) However, CME could have continued to process CDS trades while any additional work was done to remedy these issues. The Dealer Defendants feared that CME's clearing approach based upon its futures infrastructure provided a solid basis for exchange trading and unbiased clearing of CDS trades. The Dealer Defendants conspired to ensure that ICE would become the dominant clearinghouse because they controlled ICE and its model.

153. After that deal was complete, CME reconsidered working with Citadel and introducing electronic screens. In mid-2009, CME decided not go forward with the deal.

154. The Dealer Defendants simply refused to clear the vast majority of their CDS transactions through any institution other than ICE, which was designed only for trades between dealers and does not support exchange trading. Thus, as of mid-March 2012, CME had cleared CDS contracts with an aggregate open interest of only \$33.3 billion.

155. Other institutions attempted to form CDS clearinghouses but suffered a similar fate as CME. LCH.Clearnet cleared only 1,462 CDS trades with a gross notional value of only €58.7 billion (\$76 billion) and an aggregate open interest of €4.6 billion (\$6 billion). Two other clearinghouses, which were operated by Eurex and Euronext Liffe, shuttered their businesses after the former failed to clear even \$1 billion worth of CDS and the latter did not manage to clear a single CDS trade. In fact, Eurex, after launching in the summer of 2009, cleared only five trades worth \$123 million by January 2010.

156. The failure of these clearinghouses is directly attributable to Defendants' anti-competitive conduct. Defendants neutralized these upstarts by driving volume to ICE Clear Credit, which they uniquely controlled.

157. Similarly, Defendants acted to block the dissemination of actual, real-time CDS transaction data to non-dealer market participants. For example, The Clearing Corporation ("TCC") is one of the oldest clearinghouses in the United States. TCC was owned also by, and had preferential fees and profit sharing arrangements with, Defendants Bank of America, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley, and UBS. In May 2008, TCC and DTCC agreed to facilitate central counterparty services for the OTC derivatives market using netting and risk management processes and the asset servicing services of DTCC's Trade Information Warehouse. On March 6, 2009, ICE acquired TCC to provide the risk management framework, operational processing and clearing infrastructure for ICE Clear Credit (formerly ICE Trust) and ICE Clear Europe CDS clearinghouses.

158. DTCC's Trade Information Warehouse operates and maintains the centralized global electronic database for virtually all CDS contracts outstanding in the marketplace. After two counterparties enter into a CDS contract, each reports the details of the transaction to a trade matching and confirmation service, of which ICE Link and MarkitServ are the major providers. Details of confirmed trades are reported to DTCC's Trade Information Warehouse. Significantly, however, DTCC's Trade Information Warehouse provides only limited, weekly data to the public, including to non-dealer market participants.

2. Limiting Access to Central Clearing

a. Background

159. CDS are contracts that provide protection against the risk of default by borrowers. The buyer of the CDS makes periodic payments to the seller, and in return the buyer receives a

payoff if the borrower defaults. Although swaps are bilateral contracts, they are often intermediated by a dealer bank. That is, rather than two ultimate economic parties to a swap (the “end users”) swapping directly with each other, they swap with a dealer bank. There may be one dealer bank involved or each end user could swap with a separate dealer bank, which then swaps with another dealer bank. Alternatively, the dealer bank could itself be the end user in a swap for its proprietary account.

160. In the OTC CDS dealer market, working through a dealer bank means that the end users assume the default risk of the dealer bank rather than each other. The dealer bank assumes the credit risk of both end users (and, to the extent it does not perfectly match the swaps, the risk on the swap itself). Because the dealer bank has assumed the credit risk of its counterparties (end users or other dealer banks), it: will price for risk; may require its counterparty to post margin (collateral) upfront; may additionally require margin to be adjusted throughout the duration of the swap; may limit its total exposures to any single swap counterparty; and may seek to limit risk through a novation by submitting the trade to a clearinghouse if it finds risk rising too quickly during the contract. The dealer will have setoff and netting rights under the standard agreement governing most OTC swaps (usually the ISDA 2002 Master Agreement).

161. Centralized clearing through a clearinghouse presents an alternative risk-sharing arrangement. After the financial crisis of 2008, the Dodd-Frank Act, the principal regulation of derivatives, including CDS, requires swap contracts to be submitted for central counterparty clearing by clearinghouses (or “derivatives clearing organizations”), rather than being cleared bilaterally by dealer banks in the OTC market. The system, infrastructure and implementation for central clearing are reportedly mostly in place. For example, on July 25, 2013, pursuant to the Dodd-Frank Act, the CFTC announced the second phase of required clearing for certain

iTraxx CDS indices for, among other entities, persons predominantly engaged in activities that are in the business of banking or activities that are financial in nature, except for third-party accounts. Press Release, U.S. Commodity Futures Trading Commission, CFTC Announces that Mandatory Clearing of iTraxx CDS Indices for Category 2 Entities Begins Today (Jul. 25, 2013), <http://www.cftc.gov/PressRoom/PressReleases/pr6651-13>.

162. A clearinghouse may reduce counterparty risk by standing between the buyer and seller of protection and insulating the counterparties' exposure to each other's default.

Clearinghouses use their mutual insurance features by way of a common guaranty fund to which all members contribute pro rata in order to diffuse losses across their membership.

Clearinghouse members are usually large financial institutions such as the Dealer Defendants.

Other parties access the clearinghouse through customer accounts with clearinghouse members, with the clearinghouse serving as a central counterparty to all swaps. Thus, in a clearinghouse, the end user directs its agent, the clearinghouse member, to enter into a swap with another end user, which also has a clearinghouse member as its agent. If the clearinghouse member defaults, the clearinghouse will make good the payment on the matched swap to the other member. Thus, all the counterparty risk falls on the clearinghouse.

163. Because clearinghouses do only matched swaps, they typically charge a flat, per transaction fee or a transaction-size based fee. Clearinghouses adjust for risk based on collateral requirements rather than fees. Clearinghouses provide a party to multiple, offsetting trades of a particular CDS with the opportunity to reduce the aggregate margin that the party must post with a clearinghouse.

b. Dealer Defendants assert control over clearing of CDS transactions through ICE

164. Under the clearing rules established by ICE's Risk Committee, ICE accepts trades only from participants. At the launch of ICE's clearinghouse, its Risk Committee included Defendants Bank of America, Barclays, BNP Paribas, Citibank, Credit Suisse, Deutsche Bank, Goldman Sachs, JPMorgan, Morgan Stanley, and UBS. ICE's participants currently include Bank of America, Barclays, BNP Paribas, Citibank, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, Royal Bank of Scotland and UBS. ICE has no clearing members from the buy-side of CDS trading.

165. The Dealer Defendants also control ICE's membership and rules through seats on ICE's Risk Committee, which makes and/or adopts ICE's clearing rules. ICE's Risk Committee meets once a month. Its members have included James J. Hill of Morgan Stanley, Athanassios Diplas of Deutsche Bank, Thomas J. Benison of JPMorgan, Paul Hamill of UBS, Paul Mitrokostas of Barclays, Andy Hubbard of Credit Suisse, Oliver Frankel of Goldman Sachs, Ali Balali of Bank of America and Biswarup Chatterjee of Citigroup.

166. The Dealer Defendants also engage in direct communications with each another, separate from the communications in the course of serving on the boards of the key institutions that they control.

167. The Dealer Defendants, as ICE's clearing members, are afforded preferential fee treatment and enjoy a revenue-sharing arrangement with ICE. This arrangement provides the Dealer Defendants with an incentive to patronize ICE and a significant competitive advantage over other market-makers that may seek to be active in the CDS market. The Dealer Defendants' annual revenues derived from such clearing services are estimated to be several billion dollars.

c. **To maintain unreasonable restraints, Dealer Defendants excluded central clearing and exchange trading in CDS**

168. Independent central clearing and exchange trading threatened to end the Dealer Defendants' barriers to entry. The CME-Citadel CMDX exchange platform would have allowed buyers to make anonymous public bids and sellers to make anonymous public offers, with a computer system matching bids and offers, side-stepping the involvement of the Dealer Defendants. Thus, CMDX would have enabled market participants to interact directly with each other and to bypass the Dealer Defendants.

169. The Dealer Defendants, Defendant ISDA and Defendant Markit Group agreed to boycott and unreasonably restrain the development of exchange trading, like CMDX and clearing offerings that could support exchange trading, such as the clearing offerings presented at the October 2008 Federal Reserve meeting by CME, Eurex and NYSE Euronext.

170. The Dealer Defendants instead developed and supported their own clearinghouse, ICE Clear Credit, in order to funnel CDS clearing through a clearinghouse they controlled. While ICE allowed for clearing of OTC transactions, it did not, at the direction of the Dealer Defendants, support an exchange.

171. During 2008, Citadel and CME met and communicated with key CDS market players to obtain their cooperation to ensure the success of CMDX. The participation of the Dealer Defendants in CMDX was indispensable because they controlled the CDS market and Defendants Markit Group and ISDA.

172. On July 31, 2008, Defendants reported to the President of the Federal Reserve Bank of New York that their continued progress toward improving credit and equity derivatives market participant practices and, specifically, central clearing, was ongoing. Dealer Defendants reported that they remained committed to central clearing in the index, single-name and index

tranche products and that they were committed to support a clearing platform and utilize such platform to clear all eligible products where practicable.

173. In October 2008, Defendant Markit Group and CMDX were engaged in licensing negotiations. Because Markit Group would have obtained licensing and other revenues in connection with the launch of CMDX, it was in Markit Group's economic and financial self-interest to participate in creating the exchange.

174. For example, CMDX planned to launch with both single-name CDS and indices. Index CDS constituted approximately 41% of the market, rendering an exchange's ability to offer trading therein significant. Markit Group owned single-name constituents, covering more than 90% of the CDS market, and major indices such as CDX and iTraxx.

175. In addition, an exchange would generate CDS transaction data. In the bilateral OTC CDS market, Defendant Markit Group received dealer market data. In an exchange context, Markit Group would be able to sell exchange transaction data to CDS market participants if CMDX or another exchange was established.

3. Imposing Prohibitive Capital Requirements

176. Potential clearing members must satisfy the clearinghouse's requirements (capitalization, credit quality and operational readiness) and be able to post a minimum deposit into the guarantee fund. For each transaction cleared, participants must post original margin and post or receive daily variation margin based on daily price changes, all as determined by the clearinghouse. Original margin represents a reserve intended to cover price changes on a position during the period from a market participant's default to the liquidation of such position. Variation margin is a variable margin payment made by clearing members to the clearinghouse based upon adverse price movements of the OTC derivatives these members hold (in order to reduce credit exposure). A non-clearinghouse member must utilize the services of a member of

such clearinghouse in order to participate in a CDS transaction cleared through such clearinghouse.

177. The Dealer Defendants refused to allow the deal with ICE to close until the clearinghouse's rulebook was established, with provisions in the Dealer Defendants' favor. Key among those were the membership rules, which required members to hold large amounts of capital in derivatives units, a condition that was prohibitive even for some large entities like BONY.

178. At all times relevant herein, ICE's Risk Committee determined the capital requirements of potential clearinghouse members. Initially, ICE required that potential members have a net capital in their derivatives unit of \$5 billion in order to join ICE. The Dealer Defendants established this amount of required capital to protect their market share in the CDS market. ICE's clearing rules and membership requirements effectively excluded buy-side participation through the clearinghouse. As a result, ICE only clears CDS transactions with a Dealer Defendant on at least one side of the transaction.

179. However, even major institutions such as BONY and State Street were unable to meet ICE's capital membership requirements. In 2010, BONY's application to become a clearing member of ICE was rejected because its derivatives operation had too little capital. The chief executive of Bank of New York Mellon Clearing, Sanjay Kannambadi, complained to *The New York Times*: "We are not a nobody. But we didn't qualify. We certainly think that's kind of crazy." Louise Story, *A Secretive Banking Elite Rules Trading in Derivatives*, N.Y. Times, Dec. 11, 2010, http://www.nytimes.com/2010/12/12/business/12advantage.html?pagewanted=all&_r=0. Without access to ICE's clearinghouse, those institutions could not develop meaningful CDS dealing operations.

180. In the wake of the financial crisis of 2007-2008 and the passage of the Dodd-Frank Act, regulators ordered the Dealer Defendants to speed up plans to set up a clearinghouse to handle derivatives trading.

181. As part of the CFTC's rulemaking process, the DOJ raised concerns that a clearinghouse's "captured committees could serve as a mechanism for attempts to further restrict competition among dealers and other market participants." Comments of the U.S. Dep't of Justice, *In the Matter of: RIN 3038-AD01* (Dec. 28, 2010), <http://www.justice.gov/atr/public/comments/265618.htm>. Specifically, major dealers controlling a clearinghouse's operations "could result in their restricting access to new clearing members in an effort to insulate themselves from competition in making markets." *Id.* The DOJ further advised the CFTC that "[t]hese actions against potential new clearing members could [not] be explained away, for example, by expressing risk management-related concerns." *Id.*

182. As of July 8, 2011, ICE's CDS clearinghouses cleared \$20 trillion in gross notional value with aggregate open interest of \$1.5 trillion. ICE Trust cleared \$11.9 trillion of gross notional value, including \$980 billion in single-name clearing, resulting in open interest of \$727 billion. ICE Trust also cleared \$7.4 billion in buy-side transactions. ICE Clear Europe cleared €5.9 trillion (\$8.1 trillion) of gross notional value of CDS transactions, including €952 billion (\$1.3 trillion) in single-name CDS, resulting in €538 billion (\$773 billion) of open interest.

183. On July 15, 2011, ICE announced that ICE Trust U.S., ICE's North American CDS clearinghouse, would complete its transition to a CFTC-regulated Derivatives Clearing Organization and SEC-regulated Securities Clearing Agency pursuant to the Dodd-Frank Act.

184. In July 2011, ICE finally reduced its membership capital requirement from \$5 billion to \$100 million in net capital. The enormous reduction belies any reasonableness to the prior constraints and betrays their exclusively anti-competitive motivation.

185. Such motivation was in response to continued pressure and potential action by the CFTC. At the same time, ICE required that entities organized as broker-dealers or future commission merchants hold 5% of customer funds as excess net capital. This 5% margin requirement anti-competitively excluded and effectively prevented smaller entities from entering the CDS clearing business.

186. Nonetheless, by late summer 2011, ICE's new membership standards at its U.S. CDS clearinghouse still excluded small brokers:

Intercontinental's ICE Clear Credit, the world's largest credit swap clearinghouse, last month reduced the amount of adjusted net capital needed by a broker-dealer or futures commission merchant that wants to be a member to \$100 million from \$5 billion. It also requires 5% of customer funds to be on hand as excess net capital, a standard that most of the smaller brokers, which aren't banks, don't meet, according to Commodity Futures Trading Commission data.

Matthew Leising, *ICE Clear Credit's Member Rules Too Exclusive, Small Firms Say*, Bloomberg (Aug. 9, 2011), <http://www.bloomberg.com/news/2011-08-09/ice-clear-credit-s-member-rules-too-exclusive-small-firms-say.html>.

187. In October 2011, the CFTC finalized a rule reducing the capital membership requirement for firms to become clearing members to \$50 million. The purpose of the CFTC's action was to reduce risk to the financial system resulting from concentration of CDS among the dealers that dominate the industry. ICE, however, maintained the 5% capital rule, which still anti-competitively operated to exclude broker-dealers and future commission merchants from clearing CDS. Pursuant to the Dodd-Frank Act, the CFTC has adopted regulations establishing appropriate admission and continuing participation requirements for clearinghouses that are

objective, publicly disclosed and risk-based. 17 C.F.R. § 39.12. The regulations require that the “participation requirements shall set forth capital requirements that are based on objective, transparent and commonly accepted standards that appropriately match credit risk. Capital requirements shall be scalable to the risks posed by clearing members.” 17 C.F.R. § 39.12(a)(2)(ii).

188. In May 2012, ICE reduced the capital requirement to \$50 million to comply with the CFTC’s newly adopted Regulations, 17 C.F.R. §§ 39.12(a)(2)(ii) and 39.12(a)(2)(iii). In addition, the May 2012 change to ICE Clear’s Rule 201(b) dropped the 5% of customer-funds-as-excess-net-capital-requirement requirement. See ICE Clear Credit, Proposed Rule Change (Form 19b-4) (Apr. 3, 2012), *available at* https://www.theice.com/publicdocs/regulatory_filings/040312_SEC_ICEClearCredit.pdf. Despite the change in ICE’s capital requirements, all of the current participants are the Dealer Defendants and a few large, foreign banks. See ICE Clear Credit, Participant List, https://www.theice.com/publicdocs/clear_credit/ICE_Clear_Credit_Participant_List.pdf (last visited July 25, 2013). These regulations reflect the prohibitive nature of ICE’s membership requirements.

189. ICE’s membership requirements are unnecessarily exclusionary and anti-competitive because they guarantee that almost all firms, except the Dealer Defendants, will fail to satisfy them. The membership requirements effectively exclude other institutions from dealing CDS and competing with the Dealer Defendants for clearing services because those institutions cannot access vital clearing services.

190. By agreeing to undertake the foregoing anti-competitive, exclusionary and unreasonable restraints, the Dealer Defendants maintained their monopoly and inflated CDS

transaction spreads, and artificially inflated the amount of money that they received on each CDS transaction to the detriment of Plaintiff and members of the Class.

G. Regulatory Investigations

1. U.S. Department of Justice Investigation

191. On or about July 15, 2009, the DOJ confirmed that its Antitrust Division was investigating anti-competitive practices in the credit derivatives clearing, trading and information services industries. See John Manley, *U.S. Justice Dept. confirms derivatives probe*, Bloomberg (Jul. 16, 2009), <http://blogs.reuters.com/financial-regulatory-forum/2009/07/16/us-justice-dept-confirms-credit-derivatives-probe/>.

192. The day before, Defendant Markit Group disclosed that “Markit has been informed of an investigation by the DOJ into the credit-derivatives and related markets.” Matthew Leising, *Credit Swaps Investigated by U.S. Justice Department*, Bloomberg (Jul. 14, 2009), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aTIJ1GZBX_m4.

193. On July 21, 2009, DTCC confirmed that the company had received a request for information from the DOJ as part of an investigation into the CDS market.

194. In or around May 2012, the DOJ expanded its investigation to focus on Defendant Markit Group’s influence in providing services in the CDS market. The DOJ also investigated Markit Group’s RED identifier system, which is used in the CDS market to perform legal verification of entity and reference obligation data to enable trades to be confirmed and tracked.

2. European Union Investigations

195. In April 2011, the European Union opened two antitrust investigations concerning the CDS market:

In the first case, the Commission will examine whether 16 investment banks and Markit, the leading provider of financial information in the CDS market, have colluded and/or may hold and abuse a dominant position in order to control the

financial information on CDS. If proven such behaviour would be a violation of EU antitrust rules. In the second case, the Commission opened proceedings against 9 of the banks and ICE Clear Europe, the leading clearing house for CDS. Here, the Commission will investigate in particular whether the preferential tariffs granted by ICE to the 9 banks have the effect of locking them in the ICE system to the detriment of competitors.

Press Release, European Commission, Antitrust: Commission probes Credit Default Swaps market (Apr. 29, 2011), http://europa.eu/rapid/press-release_IP-11-509_en.htm.

196. In the first case, the EC stated that the “investigation focuses on the financial information necessary for trading CDS” because the EC “has indications that the 16 banks that act as dealers in the CDS market give most of the pricing, indices and other essential daily data only to Markit.” *Id.* In addition, the probe would examine the behavior of Markit Group because the EC was “concerned certain clauses in Markit’s license and distribution agreements could be abusive and impede the development of competition in the market for the provision of CDS information.” *Id.*

197. In the second case, the EC stated that it was investigating a number of agreements between nine of the sixteen CDS dealers (Defendants Bank of America, Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, JP Morgan, Morgan Stanley and UBS) and ICE Clear Europe concluded at the time of the sale by the dealers of The Clearing Corporation to ICE. These agreements contained clauses on preferential fees and profit sharing arrangements that created the “incentive for the banks to use only ICE as a clearing house,” causing other clearinghouses to have difficulties in successfully entering the market and “other CDS players [to] have no real choice where to clear their transactions.” *Id.*

198. On March 26, 2013, the EC expanded the scope of its investigation to include Defendant ISDA. *See* Press Release, European Commission, Antitrust: Commission extends CDS information market investigation to International Swaps and Derivatives Association (Mar.

26, 2013), http://europa.eu/rapid/press-release_IP-13-286_en.htm. The EC's inquiry found "ISDA may have been involved in a coordinated effort of [the Dealer Defendants] to delay or prevent exchanges from entering the credit derivatives business." *Id.*

199. On July 1, 2013, the EC sent a statement of objections, or complaint, to the Dealer Defendants, Defendant Markit Group and Defendant ISDA with the EC's "preliminary conclusion that they had infringed EU antitrust rules that prohibit anti-competitive agreements by colluding to prevent exchanges from entering the credit derivatives business between 2006 and 2009." See Press Release, European Commission, Antitrust: Commission sends statement of objections to 13 investment banks, ISDA and Markit in credit default swaps investigation (Jul. 1, 2013), http://europa.eu/rapid/press-release_IP-13-630_en.htm.

200. Since the financial crisis of 2007-2008, global policy makers have pushed for CDS contracts to be cleared, but it has been slow going. In 2012, only 10% of the \$25 trillion in notional amounts of CDS transactions was cleared. See *Credit default swaps: reputational damage*, Financial Times (Jul. 4, 2013), <http://www.ft.com/intl/cms/s/3/b5161dd4-e2a3-11e2-a7fa-00144feabdc0.html#axzz2Y6YtOJDx> (subscription).

201. As of February 1, 2013, ICE had cleared \$21.7 trillion of CDS by gross notional value, including \$114 billion in buy-side clearing and \$2.15 trillion in single-name CDS clearing, resulting in open interest of \$738 billion. As of February 1, 2013, ICE Clear Europe (ICE's sister corporation located abroad) had cleared €11.4 trillion (\$15.5 trillion) of gross notional value, including €1.59 trillion (\$2.17 trillion) in single-name CDS clearing, resulting in open interest of €479 billion (\$653 billion).

202. There are significant barriers to entry into the CDS market. Defendants' control of the market and CDS pricing information, membership in a clearinghouse, and access to the

inter-dealer broker system has prevented an outside dealer or firm from being able to enter the market or compete meaningfully. *See, e.g.*, ¶¶ 117-21.

203. Dealer Defendants control in excess 85% of the U.S. CDS market. This high degree of concentration in the CDS market allows Defendants to facilitate anti-competitive conduct.

204. Price elasticity of demand measures the responsive nature in demand for a product as a result of a change in price as to that product. When a price change has no effect on the supply and demand of a good or service, it is considered to be perfectly inelastic. The demand for CDS is inelastic given their unique financial properties and the manner in which prices in the CDS market were raised without negatively affecting customer substitution or lost sales revenue. Dealer Defendants report high profits from CDS trading as compared to other comparable financial products that are not the subject of anti-competitive conduct or market restraints.

205. Defendants have routinely engaged in communications that have facilitated anti-competitive conduct. Defendants frequently communicated:

- (a) when establishing ICE Clear;
- (b) during ICE Clear Risk Committee Meetings;
- (c) during discussions concerning or relating to Markit Group's pricing data in CDS clearinghouses;
- (d) when distributing revenue generated by ICE Clear;
- (e) when attending ISDA meetings; and
- (f) during their jointly organized lobbying of the SEC, CFTC and Congress.

(For example, on August 12, 2010, representatives from the SEC and CFTC held a conference call with representatives of Dealer Defendants Bank of America, Barclays, BNP Paribas,

Citigroup, Credit Suisse, Deutsche Bank, HSBC, Morgan Stanley, and UBS, among others, to discuss the regulations, ownership and governance associated with “swap execution facility,” the platform for trading and clearing swaps required under the Dodd-Frank Act.)

206. Defendants also are members of the ISDA trade association that governs the derivatives industry. As such, they regularly attend ISDA meetings, including luncheons, dinners, receptions and other social events, which provide an opportunity to facilitate anti-competitive communications and conduct concerning the CDS market.

VII. CLASS ALLEGATIONS

207. Plaintiff brings this action on behalf of itself and all others similarly situated, as a class action pursuant to Rules 23(a), (b)(2) and (b)(3) of the Federal Rules of Civil Procedure (“FRCP”). The Class consists of:

All persons, corporations and other legal entities that transacted in credit default swaps between January 1, 2008 and December 31, 2011 (the “Class Period”).² Excluded from the Class are Defendants and any parent, subsidiary, affiliate, employee or agent of any Defendant or any judicial person assigned to this matter.

208. FRCP Rule 23(a)(1). Class members number in the hundreds or, perhaps, thousands, and are geographically dispersed such that joinder is impractical.

209. FRCP Rule 23(a)(2). Common issues of fact and law include but are not limited to:

- (a) Whether Defendants’ unlawful actions violate § 1 of the Sherman Act;
- (b) Whether Defendants possess monopoly power in the CDS market;
- (c) Whether Defendants willfully acquired, maintained and enhanced their monopoly power in the relevant market in violation of § 2 of the Sherman Act;

² Plaintiff expressly reserves the right to amend the Class definition at the time of the motion for class certification or otherwise.

(d) Whether Defendants entered into a conspiracy to monopolize or attempted to monopolize the CDS market in violation of § 2 of the Sherman Act;

(e) Whether Defendants' unlawful conduct caused injury to the business or property of Plaintiff and the Class;

(f) Whether such injury or the extent of such artificiality may be established by common, class-wide means, including, for example, by regression analysis, econometric formula or other economic tests;

(g) Whether Defendants unjustly enriched themselves or are otherwise responsible for disgorgement/restitution under the common law;

(h) The operative time period and extent of Defendants' violations; and

(i) The appropriate relief.

210. FRCP Rule 23(a)(3). Plaintiff's interests are typical of, and not antagonistic to the interests of, the Class.

211. FRCP Rule 23(a)(4). Plaintiff is not antagonistic to the Class and is an adequate class representative.

212. FRCP Rule 23(b)(2). Defendants have acted or refused to act on grounds generally applicable to Plaintiff and members of the Class, making final declaratory and injunctive relief appropriate with respect to Plaintiff and the Class.

213. FRCP Rule 23(b)(3). Common issues predominate over individual issues (if any). A class action is superior to other methods (if any) for a fair and efficient adjudication of this case. Indeed, a class action is the only method by which Plaintiff and the Class can efficiently seek redress because of "negative value" claims. The records of CDS transactions are required to be maintained by sellers during the normal courses of their businesses. Plaintiff does not

anticipate any difficulties in the identification of Class members, notice to Class members or other aspects of the management of this action as a class action.

VIII. RELEVANT MARKET

214. The relevant product market for purposes of this action is the CDS market in transactions with non-dealers. CDS offer a means of hedging credit risk or speculating on credit risk that is unlike any other financial product. Other financial products are not perfect substitutes.

215. The relevant geographic market is the United States.

216. Defendants possess more than 85% of the relevant market. They are parties to the large majority of all CDS transactions with non-dealers in the United States.

217. The trade and commerce involved in this market is the trading of CDS between dealers and non-dealers in the United States.

218. The activities of the Dealer Defendants and their co-conspirators were within the flow of interstate trade and commerce and had a substantial effect on interstate trade and commerce and negatively impacted such trade and commerce.

IX. THE DEALER DEFENDANTS' MONOPOLY POWER IN THE RELEVANT MARKET

219. Defendants attempted and conspired to monopolize and did monopolize the relevant market by, *inter alia*: (a) colluding in the deliberate and systematic fixing, maintaining and/or inflation of bid-ask spreads on CDS transactions; (b) engaging in excluding other potential market participants from entering the CDS market; and (c) conspiring with or obtaining the cooperation of co-conspirators, agents and others in engaging in the unlawful conduct alleged herein.

220. Defendants fixed, raised, maintained or stabilized bid-ask spreads on CDS transactions and excluded competitors from the CDS market during the Class Period.

X. THE STATUTE OF LIMITATIONS DID NOT BEGIN TO RUN BECAUSE PLAINTIFF DID NOT AND COULD NOT DISCOVER ITS CLAIMS

221. By its very nature, as alleged herein, the unlawful activity that Defendants engaged in was self-concealing. Defendants, *inter alia*, conspired and engaged in secret activities in order to manipulate the CDS market and maintain inflated CDS bid-ask spreads.

222. Plaintiff and members of the Class had no knowledge of the unlawful conduct alleged in this Complaint, or of any facts that could or would have led to the discovery thereof, until at least July 2009 when the DOJ confirmed that its Antitrust Division was investigating anti-competitive practices in the credit derivatives clearing, trading and information services industries.

223. For these reasons, among others including those alleged herein and presently unknown to Plaintiff and members of the Class, the statute of limitations as to Plaintiff and the Class did not begin to run, and/or has been tolled, with respect to the claims that Plaintiff and the Class allege herein.

224. In the alternative, application of the doctrine of fraudulent concealment tolled the statute of limitations as to the claims asserted by Plaintiff and the members of the Class. Plaintiff and the members of the Class did not know and could not have known of the existence of the conspiracy and other unlawful conduct alleged herein until July 2009, at the earliest, the date the DOJ confirmed that its Antitrust Division was investigating anti-competitive practices in the credit derivatives clearing, trading and information services industries. *See* ¶ 191.

225. By its very nature, as alleged herein, the unlawful activity in which Defendants engaged was self-concealing. Defendants, *inter alia*, conspired and engaged in secret activities to manipulate the CDS market and maintain inflated CDS spreads.

226. Because Defendants employed acts and techniques that were calculated to wrongfully conceal the existence of such illegal conduct, Plaintiff and the members of the Class could not have discovered the existence of this unlawful conduct any earlier than its public disclosure in July 2009.

227. Because the alleged conspiracy was self-concealing and affirmatively concealed by Defendants and their co-conspirators, Plaintiff and the members of the Class had no knowledge of the alleged conspiracy, or of any facts or information that would have caused a reasonably diligent person to investigate whether a conspiracy existed, until July 2009, when the DOJ confirmed that its Antitrust Division was investigating anti-competitive practices in the credit derivatives clearing, trading and information services industries. *See* ¶ 191.

228. For these reasons, the statute of limitations applicable to Plaintiff's and the Class's claims was tolled and/or did not begin to run until July 2009.

XI. CLAIMS FOR RELIEF

COUNT I AGAINST THE DEALER DEFENDANTS (Contract Combination or Conspiracy to Fix, Raise, Maintain or Stabilize CDS Spreads in Violation of § 1 of the Sherman Antitrust Act, 15 U.S.C. § 1 and § 4 of the Clayton Act, 15 U.S.C. §§ 15(a) and 26)

229. Plaintiff re-alleges and incorporates the preceding allegations of this Complaint with the same force and effect as if fully restated herein.

230. Defendants entered into and engaged in a contract, combination or conspiracy in unreasonable restraint of trade in violation of § 1 of the Sherman Act and § 4 of the Clayton Act.

231. The contract, combination or conspiracy consisted of a continuing agreement, understanding or concerted action between and among Defendants and their co-conspirators in furtherance of which Defendants fixed, raised, maintained or stabilized bid-ask spreads on CDS transactions during the Class Period. Defendants' conspiracy constitutes a *per se* violation of the federal antitrust laws and is, in any event, an unreasonable and unlawful restraint of trade.

232. Each of the Defendants acted with full awareness of the anti-competitive purpose of the conduct into which they were entering and the manner thereof. Defendants exercised their independent judgment and skill to effectuate the purposes of the unlawful restraint of trade (i.e., to fix, raise, maintain or stabilize bid-ask spreads on CDS transactions during the Class Period).

233. Defendants' conduct, and its resulting impact on the bid-ask spreads on CDS transactions, occurred in or affected interstate and international commerce.

234. As a proximate result of Defendants' unlawful conduct, Plaintiff and members of the Class have suffered injury to their business or property.

235. Plaintiff and members of the Class are each entitled to treble damages for Defendants' violations of the Sherman Act alleged herein and a permanent injunction restraining Defendants from engaging in additional anti-competitive conduct.

COUNT II
AGAINST ALL DEFENDANTS
(Conspiracy to Monopolize the CDS Market in Violation of
§ 2 of the Sherman Act, 15 U.S.C. § 2)

236. Plaintiff re-alleges and incorporates the preceding allegations of this Complaint with the same force and effect as if fully restated herein.

237. Defendants acquired, willfully maintained, and unlawfully exercised monopoly power in the relevant market by their deliberate conduct to monopolize the sell-side of the CDS market and therefore control, *inter alia*, the dissemination of information, selling rules and

standards, and pricing in the CDS market. Defendants accomplished the foregoing through, *inter alia*, their ownership and control of Markit Group, ISDA, ICE and DTCC.

238. During the Class Period, Defendants had the power to, and did in fact, fix, raise, maintain or stabilize bid-ask spreads on CDS transactions. There is no legitimate business justification for Defendants' actions and the conduct through which they acquired and maintained monopoly power in the relevant market.

239. The anti-competitive effects of Defendants' conduct far outweigh any ostensible competitive benefits or justifications.

240. In violation of § 2 of the Sherman Act, Defendants attempted to monopolize and did monopolize the relevant market by fixing, raising, maintaining or stabilizing bid-ask spreads on CDS transactions during the Class Period.

241. By engaging in their manipulative activities during the Class Period as alleged herein, Defendants set the prices of CDS transactions during the Class Period in order to benefit therefrom.

242. Defendants' unlawful price control of the relevant market during the Class Period reflects monopoly power.

243. Defendants' conduct and its resulting impact on the relevant market occurred in and/or affected interstate and international commerce, which had a direct, substantial and reasonably foreseeable effect on U.S. commerce.

244. Defendants also attempted and conspired to monopolize the relevant market, and fix, raise, maintain or stabilize bid-ask spreads on CDS transactions. As alleged herein, Defendants' unlawful conduct in the relevant market artificially set and directly impacted bid-ask spreads on CDS transactions.

245. Plaintiff and members of the Class have been injured in their business or property by Defendants' conspiracy to monopolize, attempted monopolization and monopolization of the relevant market. Without limiting the foregoing, Plaintiff and members of the Class have paid artificial prices on CDS transactions as a result of Defendants' anti-competitive conduct in violation of § 2 of the Sherman Act.

246. Defendants' anti-competitive conduct had severe adverse consequences on competition and market/price transparency. Plaintiff and other members of the Class were deprived of normal, competitive prices and were subjected to artificially set prices as a result of Defendants' unlawful and manipulative conduct. As a consequence thereof, Plaintiff and the Class suffered financial losses and were, therefore, injured in their business or property. Plaintiff and members of the Class are entitled to treble damages for the violations of the Sherman Act alleged herein.

COUNT III
AGAINST ALL DEFENDANTS
(Unjust Enrichment And Restitution/Disgorgement)

247. To the extent that Defendants benefited from their extensive unlawful acts, they necessarily did so by forcing Plaintiff and members of the Class to pay artificial prices on CDS transactions during the Class Period.

248. It would be inequitable under unjust enrichment principles in the District of Columbia and of all fifty states, except Ohio and Indiana, for Defendants to be permitted to violate that rule set and still retain the benefit that Defendants obtained from such violation and at the expense of Plaintiff and members of the Class.

249. Equity and good conscience require restitution by Defendants.

250. Each Defendant should pay restitution or its own unjust enrichment to Plaintiff and members of the Class.

XII. PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment against Defendants as follows:

- (A) For an order certifying this lawsuit as a class action pursuant to Rules 23(a), (b)(2) and (b)(3) of the Federal Rules of Civil Procedure and designating Plaintiff as Class Representative and its counsel as Class Counsel;
- (B) For a judgment awarding Plaintiff and the Class treble damages against Defendants as a result of their unlawful anti-competitive conduct alleged herein under applicable federal antitrust law;
- (C) For a judgment awarding Plaintiff and the Class the amount of Defendants' unjust enrichment;
- (D) For an award to Plaintiff and the Class of their costs of suit, including reasonable attorneys' and experts' fees and expenses; and
- (E) For such other and further relief as the Court may deem just and proper.

XIII. DEMAND FOR JURY TRIAL

Plaintiff hereby demands a jury trial.

Dated: July 29, 2013

Plaintiff,

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Attorneys for Plaintiff

EXHIBIT 1

UNITED STATES DISTRICT COURT FOR
THE SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,

PLAINTIFF,

v.

Civil Action No.

ALEX. BROWN & SONS INC.;
BEAR, STEARNS & CO. INC.; CS
FIRST BOSTON CORP.; DEAN
WITTER REYNOLDS INC.;
DONALDSON, LUPKIN & 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.; PAINWEBBER
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.

STIPULATION AND ORDER

WHEREAS, plaintiff, United States of America, having filed its complaint on July 17, 1996, and plaintiff and defendants, by their respective attorneys, having agreed to the entry of this stipulation and order without trial or adjudication of any issue of fact or law herein and without this stipulation and order constituting any evidence against or an admission by any party

with respect to any such issue;

NOW, THEREFORE, before the taking of any testimony and without trial or adjudication of any issue of fact or law herein, Plaintiff and defendants hereby agree as follows:

I.

JURISDICTION AND VENUE

This Court has jurisdiction over the subject matter of and the parties to this action. Venue is proper in the Southern District of New York.

II.

DEFINITIONS

As used in this stipulation and order:

- A. "Any" means one or more.
- B. "Ask" or "offer" means the price quoted on Nasdaq at which a market maker offers to sell a specific quantity of a particular Nasdaq security.
- C. "Bid" means the price quoted on Nasdaq at which a market maker offers to buy a specific quantity of a particular Nasdaq security.
- D. "Dealer spread" means the difference between a market maker's bid and ask on Nasdaq for a particular Nasdaq security at any given time.
- E. "Defendant" means a defendant that has executed this stipulation and order.

F. "Effective date" means the date on which plaintiff and defendants have indicated their agreement by executing this stipulation and order.

G. "Inside spread" means the difference between the highest bid and the lowest ask on Nasdaq of all market makers for a particular Nasdaq security at any given time.

H. "Market maker" means a NASD member firm that qualifies as a market maker under Section 3(a)(38) of the Securities Exchange Act of 1934, as amended.

I. "NASD" means the National Association of Securities Dealers, Inc.

J. "Nasdaq" means the computerized stock quotation system operated by The Nasdaq Stock Market, Inc. that displays the quotes of market makers in Nasdaq securities.

K. "Nasdaq security" means any Nasdaq National Market System stock or any Nasdaq Small Cap Security stock quoted on Nasdaq, or, should these terms be changed or amended, any successor group of stocks quoted on Nasdaq.

L. "Or" means and/or.

M. "OTC desk" means any organizational element of a defendant engaged in market making, or its successor, that accounted for ten percent (10%) or more of such defendant's total market-making volume, measured in shares, in Nasdaq securities in the immediately preceding fiscal year;

N. "Person" means any individual, corporation, partnership, company, sole proprietorship, firm, or other legal

entity. "Other person" means a person who is not an officer, director, partner, employee, or agent of a defendant.

O. "Price" means the price at which a Nasdaq security is bought or sold.

P. "Quote increment" means the difference between a market maker's bid or ask on Nasdaq and that market maker's immediately preceding or immediately subsequent bid or ask on Nasdaq for a particular Nasdaq security.

Q. "Quote" means a bid or an ask on Nasdaq.

R. "Quoting convention" means any practice of quoting Nasdaq securities whereby stocks 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.

S. "SEC" means the United States Securities and Exchange Commission.

T. "Trader hours" means the number derived by multiplying the number of traders and assistant traders on the OTC desk and any other persons actually engaged in making markets in Nasdaq securities on the OTC desk of a defendant by the number of hours Nasdaq operates per day.

III.

APPLICABILITY

This stipulation and order applies to each defendant; to each of its executive officers, directors, partners, successors, and assigns, during the respective periods that they serve as

such; and to any agents or employees assigned to defendant's OTC desk, including supervisory employees, whose duties or responsibilities include market making in any Nasdaq security, during the respective periods that they serve as such; and applies to all other persons in active concert or participation with any of them who shall have received actual notice of this stipulation and order by personal service or otherwise.

IV.

PROHIBITED CONDUCT

A. Unless permitted to engage in activities by Section IV. B. of this stipulation and order, each defendant shall not, directly or through any trade association, in connection with the activities of its OTC desk in making markets in Nasdaq securities:

- (1) Agree with any other market maker to fix, raise, lower, or maintain quotes or prices for any Nasdaq security;
- (2) Agree with any other market maker 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 spread, inside spread, or the size of any quote increment), for any Nasdaq security;
- (3) Agree with any other market maker to adhere to a quoting convention;
- (4) Agree with any other market maker 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 (1) the minimum size required by Nasdaq or NASD rules or (2) the size displayed or otherwise communicated by that market maker, whichever is greater;

- (5) Engage in any harassment or intimidation of any other market maker, whether in the form of written, electronic, telephonic, or oral communications, for decreasing its dealer spread or the inside spread in any Nasdaq security;
- (6) Engage in any harassment or intimidation of any other market maker, whether in the form of written, electronic, telephonic, or oral communications, for refusing to trade at its quoted prices in quantities of shares greater than either (1) the minimum size required by Nasdaq or NASD rules or (2) the size displayed or otherwise communicated by that market maker;
- (7) Engage in any harassment or intimidation of any other market maker, whether in the form of written, electronic, telephonic, or oral communications, for displaying a quantity of shares on Nasdaq in excess of the minimum size required by Nasdaq or NASD rules; and
- (8) Refuse, or threaten to refuse to trade, (or agree with or encourage 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 (1) the minimum size required by Nasdaq or NASD rules or (2) the size displayed or otherwise communicated by that market maker.

- B. Notwithstanding the provisions of Section IV.A.(1) - (8), any defendant shall be entitled to:
- (1) Set unilaterally its own bid and ask in any Nasdaq security, the prices at which it is willing to buy or sell any Nasdaq security, and the quantity of shares of any Nasdaq security that it is willing to buy or sell;
 - (2) Set unilaterally its own dealer spread, quote increment, or quantity of shares for its quotations (or set any relationship between or among its dealer spread, inside spread, or the size of any quote increment) in any Nasdaq security;
 - (3) Communicate its own bid or ask, or the price at or the quantity of shares in which it is willing to buy or sell any Nasdaq security to any person, for the purpose of exploring the possibility of a purchase or sale of that security, and to negotiate for or agree to such purchase or sale;

- (4) Communicate its own bid or ask, or the price at or the quantity of shares in which it is willing to buy or sell any Nasdaq security, to any person for the purpose of retaining such person as an agent or subagent for defendant or for a customer of defendant (or for the purpose of seeking to be retained as an agent or subagent), and to negotiate for or agree to such purchase or sale;
- (5) Engage in any conduct or activity authorized or required by the federal securities laws, including but not limited to the rules, regulations, or interpretations of the SEC, the NASD, or any other self-regulatory organization, as defined in Section 3(a)(26) of the Securities Exchange Act of 1934, as amended;
- (6) Engage in any underwriting (or any syndicate for the underwriting) of securities to the extent permitted by the federal securities laws;
- (7) Act as Qualified Block Positioners as defined in SEC Rule 3b-8(c), promulgated under the Securities Exchange Act of 1934, as amended, to the extent permitted by the federal securities laws;
- (8) Except as provided in Sections IV.A.(5) - (8) of this stipulation and order, take any unilateral action or make any unilateral decision regarding the market makers with which it will trade and the terms on which

it will trade; and

- (9) Engage in conduct protected under the Noerr-Pennington doctrine.

No finding of any violation of this stipulation and order may be made based solely on parallel conduct.

C. In order to ensure compliance with the provisions of Section IV.A. of the stipulation and order, each defendant shall:

- (1) Initiate and maintain an antitrust compliance program, which shall include designating, within ninety (90) days of the effective date hereof, an Antitrust Compliance Officer, who shall be responsible for establishing and maintaining an antitrust compliance program designed to provide reasonable assurance of compliance with this stipulation and order and with the federal antitrust laws by the defendant in its market making activities in Nasdaq securities on its OTC desk. The Antitrust Compliance Officer shall personally or through his designee:

- (a) Distribute, within thirty (30) days from the effective date hereof or from the date of designation of the Antitrust Compliance Officer, whichever is later, a copy of this stipulation and order to: (i) all members of the board of directors of the defendant (or if there is no board of directors, to such persons as have substantially equivalent responsibilities); and

- (ii) all employees and all officers of the defendant whose duties or responsibilities include market making in any Nasdaq security on Nasdaq;
- (b) Distribute within thirty (30) days of appointment or assignment a copy of this stipulation and order
 - (i) to any person who becomes a member of the board of directors of the defendant (or if there is no board of directors, to such persons as have substantially equivalent responsibilities) and
 - (ii) any employee or officer of the defendant whose duties or responsibilities include market making in any Nasdaq security on Nasdaq;
- (c) Brief semi-annually those persons designated in paragraphs (a)(ii) and (b)(ii) of this subsection on the meaning and requirements of the federal antitrust laws and this stipulation and order in connection with defendant's market making activities on its OTC desk in Nasdaq securities, and inform them that the Antitrust Compliance Officer or a designee of the Antitrust Compliance Officer is available to confer with them regarding compliance with such laws and with this stipulation and order;
- (d) Obtain from each person designated in paragraphs a(i) and b(i) of this subsection a one time certification that he or she: (i) has read and

agrees to abide by the terms of this stipulation and order; and (ii) has been advised and understands that a violation of this stipulation and order by such person may result in his or her being found in civil or criminal contempt of court;

- (e) Obtain from each person designated in paragraphs (a)(ii) and (b)(ii) of this subsection an annual written certification that he or she: (i) has read and agrees to abide by the terms of this stipulation and order; and (ii) has been advised and understands that a violation of this stipulation and order by such person may result in his or her being found in civil or criminal contempt of court; and
 - (f) Maintain a record of persons to whom this stipulation and order has been distributed and from whom the certification required by paragraphs (d) and (e) of this subsection has been obtained.
- (2) Within forty-five (45) days of entry of this stipulation and order by the Court, each defendant is required to install a system or systems capable of monitoring and recording any conversation on the telephones on its OTC desk used by such defendant to make markets in Nasdaq securities.
- (3) The Antitrust Compliance Officer of each defendant

shall devise a methodology for complying with paragraphs 2, 3, and 4 of this Section. No tape recorded segment shall be shorter than fifteen (15) minutes. Within thirty (30) days of entry of this stipulation and order by the Court, the methodology proposed to be employed shall be submitted to the Antitrust Division for review and approval.

- (4) The Antitrust Compliance Officer, with such trained staff as necessary, shall record (and listen to) not less than three and one-half percent (3.5%) of the total number of trader hours of such defendant; provided, however, that in no case shall the total number of hours required to be recorded (and listened to) exceed seventy (70) hours per week. Persons whose conversations are subject to monitoring as provided by this paragraph (4) shall be told of the existence of the taping system but shall not be informed as to the times when their conversations will or might be monitored or recorded.
- (5) Upon discovery of a conversation which the Antitrust Compliance Officer of a defendant believes may violate this stipulation and order, the Antitrust Compliance Officer shall retain a tape of such conversation, and, shall within ten (10) business days, furnish such tape, and any explanation thereof to the Antitrust Division, in standard audio cassette format, or such other format

as may be acceptable to the Antitrust Division.

- (6) Tapes made pursuant to this stipulation and order shall be retained by each defendant for at least thirty (30) days from the date of recording, and may be recycled thereafter. Tapes made pursuant to this stipulation and order shall not be subject to civil process except for process issued by the Antitrust Division, the SEC, the NASD, or any other self-regulatory organization, as defined in Section 3(a)(26) of the Securities Exchange Act of 1934, as amended. Such tapes shall 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, as defined in Section 3(a)(26) of the Securities Exchange Act of 1934, as amended.
- (7) The Antitrust Division may visit, during regular business hours, any defendant's facilities unannounced, and may, while there, from a location not observable by traders, monitor conversations required to be monitored and recorded pursuant to paragraphs (2) and (4) of this Section in real time in order to ensure compliance with this stipulation and order.
- (8) Upon request of the Antitrust Division, a defendant shall immediately identify all tape recordings made pursuant to this stipulation and order that are in its

possession or control, shall provide the Antitrust Division with the opportunity to listen to any tape recording made pursuant to this stipulation and order, and shall produce to the Antitrust Division such tapes as the Antitrust Division may request.

- (9) The Antitrust Division may receive complaints or referrals concerning asserted possible violations of the stipulation and order and may, based upon such complaints or referrals, or for the purpose of monitoring or enforcing compliance with the stipulation and order, require the Antitrust Compliance Officer (a) to use the system or systems required by Section IV.C.(2) of this stipulation and order to tape the conversations of a particular person or group of persons on its OTC desk for any period of time and (b) not to give notice of such recordation to such person(s). Such requests to tape shall be subject to the time limitations set forth in paragraph (4) of this subsection.
- (10) Each Antitrust Compliance Officer shall (in addition to making reports of violations within ten (10) business days) report quarterly to the Antitrust Division concerning activities undertaken to ensure the defendant's compliance with the stipulation and order and, specifically, the requirements of paragraphs (2)-(9) of this Section. Such reports shall detail the

precise times when conversations were monitored by the Antitrust Compliance Officer pursuant to the requirements of this stipulation and order and the name of each person employed by the defendant whose conversations were recorded during such times.

V.

CERTIFICATIONS

Each defendant shall certify in the form attached hereto:

A. Within ninety (90) days from the effective date of this stipulation and order, that the defendant has designated an Antitrust Compliance Officer, specifying his or her name, business address, and telephone number;

B. Within forty-five (45) days from the entry of the stipulation and order by the Court, that the defendant has complied with the requirements of Sections IV.C.(1)(a) and (b); and

C. For five (5) years after entry of this stipulation and order by the Court, within thirty (30) days of the anniversary of its entry, each defendant shall certify annually (i) whether defendant has complied with the provisions of Sections IV.A. and IV.C. of this stipulation and order; and (ii) whether defendant has made changes in its organizational structure likely to have a significant effect on its compliance with this stipulation and order.

VI.

PLAINTIFF'S ACCESS

A. For the sole purpose of determining or securing compliance with this stipulation and order, and subject to any legally recognized privilege or work product protection, from time to time duly authorized representatives of the Department of Justice shall, upon written request of the Attorney General or of the Assistant Attorney General in charge of the Antitrust Division, and on reasonable notice to any defendant at its principal office, be permitted:

- (1) Access during office hours of such defendant, which may have counsel present, to inspect and copy (or to require defendants to produce copies of) all records and documents, excluding individual customer records, in the possession or under the control of such defendant, and which relate to compliance with this stipulation and order; and
- (2) Subject to the reasonable convenience of such defendant and without restraint or interference from the defendant, to interview officers, employees, or agents of such defendant, each of whom may have counsel present, regarding compliance with this stipulation and order.

B. Upon the written request of the Attorney General or the Assistant Attorney General in charge of the Antitrust Division made to any defendant, such defendant shall prepare and submit

such written reports, under oath if requested, relating to defendant's compliance with this stipulation and order as may be requested.

C. No information, tape recordings, or documents obtained by the means provided in Sections IV, V, and VI shall be divulged by any representative of the Department of Justice to any person other than a duly authorized representative of the Executive Branch of the United States, or the SEC, except in the course of legal proceedings to which the United States is a party, or for the purpose of securing compliance with this stipulation and order, or as otherwise required by law.

D. If at the time information, tape recordings, or documents are furnished by any defendant to plaintiff, such defendant represents and identifies in writing the material in any such information or documents to which a claim of protection may be asserted under Rule 26(c)(7) of the Federal Rules of Civil Procedure and said defendant marks each page of such material, "Subject to Claim of Protection under Rule 26(c)(7) of the Federal Rules of Civil Procedure," then ten (10) days notice shall be given by plaintiff to such defendant at its Office of General Counsel prior to divulging such material in any legal proceeding (other than a grand jury proceeding) to which that defendant is not a party.

E. Defendants may claim (which claim plaintiff shall honor to the extent legally permissible) protection from public disclosure, under the Freedom of Information Act, 5 U.S.C. § 552,

or any other applicable law or regulation, for any material submitted to the Antitrust Division under this stipulation and order.

VII.

RESCISSION BY PLAINTIFF

The parties agree that the Court may enter this stipulation and order, upon motion of any party or upon the Court's own motion, at any time after compliance with the requirements of the Antitrust Procedures and Penalties Act, 15 U.S.C. § 16, and without further notice to any party or other proceedings, provided that plaintiff has not notified the parties and the Court that it wishes to rescind its agreement to entry of the stipulation and order. Plaintiff may rescind its agreement to entry of the stipulation and order at any time before entry of the stipulation and order by the Court by serving notice thereof on the defendants and by filing that notice with the Court. In the event plaintiff rescinds its agreement to entry of the stipulation and order, the stipulation and order shall be of no effect whatever, and the agreement among the parties shall be without prejudice to any party in this or any other proceeding.

VIII.

JURISDICTION RETAINED

Jurisdiction shall be retained by the Court to enable any of the parties to this stipulation and order to apply to the Court

at any time for such further orders and directions as may be necessary or appropriate for the construction or implementation of this stipulation and order, for the enforcement or modification of any of its provisions, or for punishment by contempt.

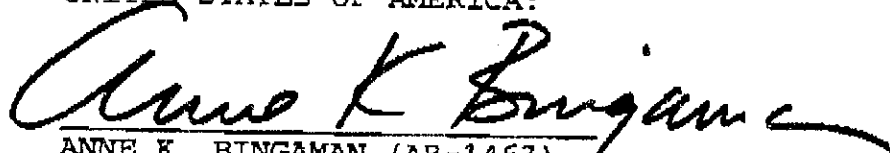
IX.

EXPIRATION OF STIPULATION AND ORDER

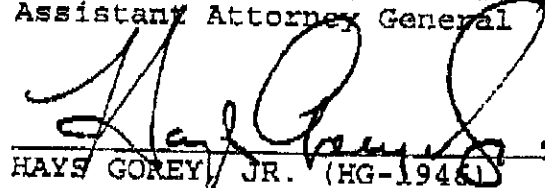
This stipulation and order shall expire ten (10) years from its date of entry by the Court, except that (a) Section IV.C.(2) - (10) shall expire five (5) years from the date of entry of this stipulation and order by the Court, except that the Antitrust Division may, after two (2) years, in its sole discretion, notify in writing any defendant that it shall no longer be subject to

Section IV.C.(2) - (10); and (b) Section VI.C., D., and E. shall not expire.

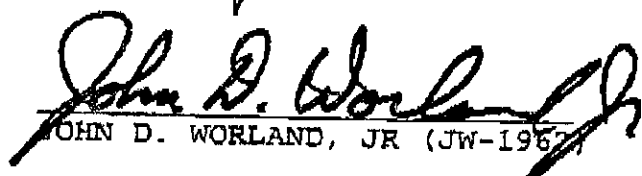
FOR PLAINTIFF
UNITED STATES OF AMERICA:



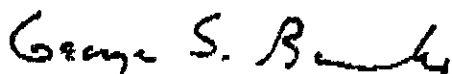
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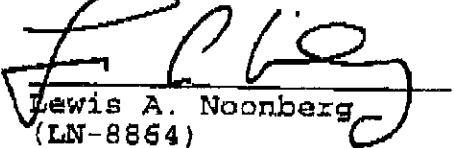
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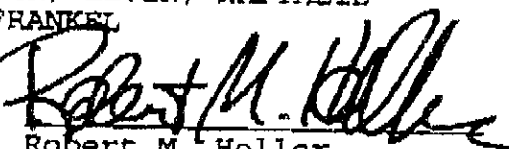

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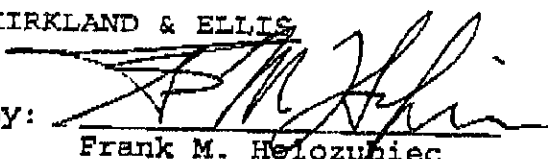

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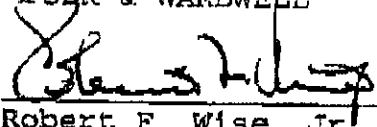

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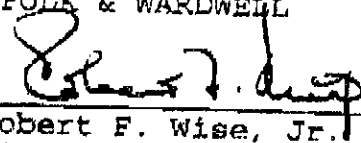

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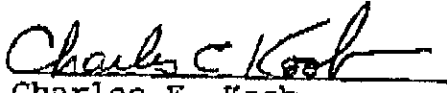

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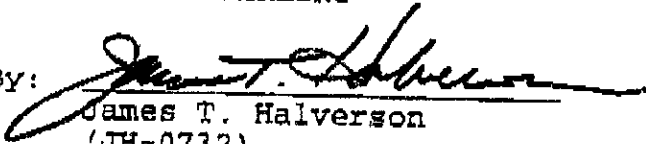

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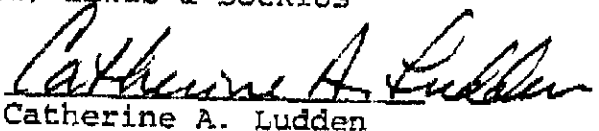

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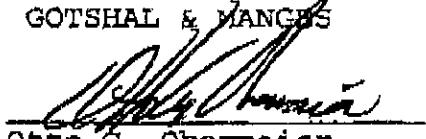

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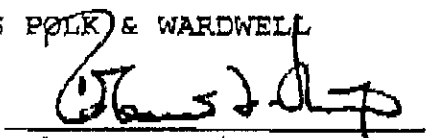

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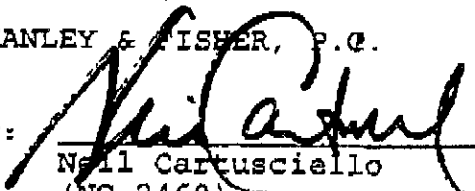

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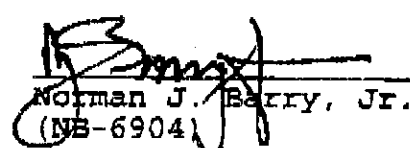

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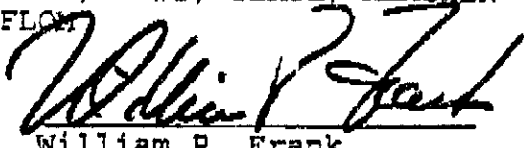

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FROM AAG BINGAMAN 2026162645

(WED) 07.17'96 17:27/ST. 17:18/NO. 3561242068 P 40

NASH, WEISS & Co.



PAUL B. UHLENHOP

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208 South LaSalle Street

#1750

Chicago, Illinois 60604

Tel: 312/372-1947

Fax: 312/372-2389

- 25 -

(MON) 07.15'96 14:18/ST. 14:11/NO. 3561019275 P 2/2

FROM

FROM AAG BINGAMAN 2025162645

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PAGE 26 INTENTIONALLY LEFT BLANK

The Court having reviewed the Complaint and other filings by the United States, having found that this Court has jurisdiction over the parties to this stipulation and order, having heard and considered the respective positions of the United States and the defendants [at a hearing on _____, 1996,] and having concluded that entry of this stipulation and order is in the public interest, it is hereby ORDERED:

THAT the parties comply with the terms of this stipulation and order;

THAT the Complaint of the United States is dismissed with prejudice;

THAT the Court retains jurisdiction to enable any of the parties to this stipulation and order to apply to the Court at any time for such further orders and directions as may be necessary or appropriate for the construction or implementation of this stipulation and order, for the enforcement or modification of any of its provisions, or for punishment by contempt.

SO ORDERED this _____ day of _____, 1996.

UNITED STATES DISTRICT JUDGE

**CERTIFICATION FORM
(ATTACHMENT TO STIPULATION AND ORDER)**

On behalf of [Name of Defendant], I [Name] hereby certify in accordance with Section V of the Stipulation and Order, dated _____, in [caption of case] that:

(Check All Applicable Certifications):

- () [Name of Defendant] has designated an Antitrust Compliance Officer, whose name, business address, and telephone numbers are:

Name: _____
Address: _____

Telephone No.: _____

- () [Name of Defendant], under the supervision of its Antitrust Compliance Officer, has distributed copies of the Stipulation and Order to all persons designated in Sections IV.C.(1)(a) and (b) of the Stipulation and Order.

- () [Name of Defendant], under the supervision of its Antitrust Compliance Officer, has:

- (a) Initiated and maintained an antitrust compliance program, as provided for in Section IV.C.(1) of the Stipulation and Order;
- (b) Briefed semi-annually those persons designated in Sections IV.C.(1)(a)(ii) and b(ii) of the Stipulation and Order on the meaning and requirements of the federal antitrust laws and the Stipulation and Order in connection with its market making activities in Nasdaq securities on Nasdaq;
- (c) Obtained the certifications identified in Sections IV.C.(1)(d) and (e) of the Stipulation and Order and maintained a record thereof;

- (d) Established monitoring and recording system or systems (Section IV.C.(2) of the Stipulation and Order), obtained the approval of the Antitrust Division of the relevant methodology (Section IV.C.(3) of the Stipulation and Order), and recorded (and listened to), in accordance with the approved methodology, not less than the lesser of three and one-half percent (3.5%) of the total number of trader hours or seventy (70) hours per week (Sections IV.C.(2) and (4) of the Stipulation and Order);
- (e) Retained and provided to the Antitrust Division any tape called for by Section IV.C.(5) of the Stipulation and Order;
- (f) Complied with the requests, if any, of the Antitrust Division pursuant to Sections IV.C.(8) and (9) of the Stipulation and Order; and
- (g) Made quarterly reports to the Antitrust Division concerning activities undertaken to ensure compliance with the Stipulation and Order, as provided for by Section IV.C.(10).

Based upon the foregoing, the representations of market makers employed on the OTC desk and their immediate supervisors, and such other procedures as have been established to provide reasonable assurance of compliance with Sections IV.A. and IV.C. of the Stipulation and Order, I have no reasonable cause to believe that, during the year ended _____, 199_, [Name of Defendant] has failed to comply with Sections IV.A. and IV.C. of the Stipulation and Order, [except to the extent previously reported to the Antitrust Division in reports, dated _____]. In addition, I am aware of no change in [Name of Defendant's] organization structure likely to have a significant effect on its compliance with this Stipulation and Order, [except for _____].

Antitrust Compliance Officer
[Name of Defendant]

[Date], 199_



Department of Justice

FOR IMMEDIATE RELEASE
WEDNESDAY, JULY 17, 1996

AT
(202) 616-2771
TDD (202) 514-1888

**JUSTICE DEPARTMENT CHARGES 24 MAJOR NASDAQ SECURITIES FIRMS
WITH FIXING TRANSACTION COSTS FOR INVESTORS**

WASHINGTON, D.C. -- The Department of Justice and 24 major Nasdaq securities firms reached a settlement today that will stop the firms from following an industry-wide practice that fixes transaction costs for investors who buy and sell stocks on the Nasdaq market. As a result of the settlement, millions of investors will no longer be subject to the anticompetitive conduct which resulted in higher trading costs for individual investors and institutions who bought or sold stocks.

Nasdaq is a computerized public market in which investors can buy and sell over-the-counter stocks. It is the second largest securities market in the U.S., which traded about \$2.4 trillion of stock last year. Founded in 1971, it is the largest electronic screen based equity market in the world.

The Department's settlement is significant because--for the first time in an Antitrust Division settlement--the settling firms will be required to monitor and tape record telephone conversations of their Nasdaq traders. Each firm will install

(MORE)

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taping systems to monitor and record no less than 3.5 percent or a maximum of 70 hours per week of all trader telephone conversations on its over-the-counter desk. Any conversation that violates the proposed order must be provided to the Department by an antitrust compliance officer within 10 business days.

Also, Department representatives can show up at a firm's office, unannounced, to listen in on trader conversations as they occur. These unprecedented enforcement provisions were put in place to ensure that the firms do not engage in further anticompetitive conduct.

"As a result of this conduct American investors had to pay more to buy and sell stocks than they would have if there had been true competition," said Attorney General Janet Reno. "We have found substantial evidence of coercion and other misconduct in this industry. By providing for the random monitoring of traders' telephone calls, we expect to deter future price fixing on Nasdaq."

The Department's Antitrust Division filed a civil antitrust suit charging 24 major Nasdaq market makers who buy and sell stocks to the investing public with inflating the quoted "inside spread" in certain Nasdaq stocks, resulting in investors having to pay more to buy or sell stocks than they would have in a competitive market. The inside spread is the difference between the best buying price and the best selling price of a stock.

(MORE)

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Transaction costs were raised through a long-standing "quoting convention" followed by traders and enforced industry-wide for many years, according to the Department's court papers.

At the same time, the Justice Department settled the case with a proposed court order forbidding the firms from continuing their illegal practice. Both the complaint and proposed court order were filed in U.S. District Court in the Southern District of New York in Manhattan.

Reno said that the proposed settlement provides all the relief the Department could expect to get if it litigated the case to conclusion. The law does not provide the Department with statutory authority to recover damages or monetary penalties in such cases.

The Department's investigation began in the summer of 1994, shortly after the publication of an economic study by Professors William Christie of Vanderbilt University and Paul Schultz of Ohio State University about the Nasdaq market.

The Department alleged in its complaint that the firms and others adhered to and enforced a "quoting convention" that was designed to deter price competition among the firms and other market makers in their trading of Nasdaq stocks.

The quoting convention required market makers to update the prices they quoted to buy and sell Nasdaq stocks on the Nasdaq screen by a quarter (25 cents) rather than an eighth (12½ cents), whenever their individual "dealer spreads" were 75 cents or more

(MORE)

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per share. A "dealer spread" is the difference between the price an individual market maker offers to buy a stock and the price it offers to sell the same stock, on a per share basis.

"If traders always quote their prices in quarters instead of eighths, then simple arithmetic tells you that the difference between the best buying and selling price will never be less than a quarter," said Anne K. Bingaman, Assistant Attorney General in charge of the Department's Antitrust Division. "The market makers on Nasdaq kept the difference between the best buying and selling prices wider than they would have been in a competitive market, which cost investors money."

The quoting convention imposes a penalty on Nasdaq market makers who want to narrow the "inside spread" in a stock. Because of this penalty--increased risk of trading the stock on the "wrong" side of the market--market makers had an incentive to avoid using eighth-point increments to update their stock quotes. The result has been that the inside spreads in a significant number of Nasdaq stocks have been wider than they would have been in a competitive market. This meant that investors were paying higher trading costs for buying and selling stocks on the Nasdaq market.

The Department alleged that traders used the telephone to enforce adherence to the quoting convention. Traders who mistakenly entered a price quote of an eighth were promptly telephoned by other traders and told to correct their price

(MORE)

- 5 -

quote. Traders would also make harassing calls to other traders who did not adhere to the quoting convention. The Department said that some traders often refused to deal with other traders who did not follow the convention.

The Department said that new traders were trained to update their price quotes in quarters for stocks with wide dealer spreads, and taught that quoting those stocks in eighths was unethical and unprofessional. The Department alleged that market makers used peer pressure to enforce the agreement. A market maker who deviated from the quoting convention might be told-- "You're spoiling it for everybody."

The Department's competitive impact statement notes that:

- Market data show that market makers began to change their price quoting practices when confronted by the adverse publicity from the Christie/Schultz economic study and the increasing pressures from government investigations.

- Market data show that while the market makers refused to publicly quote prices in eighths on the Nasdaq screen, they did trade stock in eighths with each other on a comparable trading system, called Instinet.

The proposed order contains strong remedial measures designed to prevent and detect violations of its terms, and if approved by the court, would:

- Prohibit market makers 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.

- Prevent market makers from harassing or intimidating other market makers for lowering their spread in any Nasdaq security or about the quantity they are willing to trade at its quoted price.

(MORE)

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- Require each firm to designate an antitrust compliance officer to instruct traders and others concerning the requirements of the proposed order, and to listen to tapes created under the order.
- Allow representatives of the Antitrust Division, without pre-arrangement, to appear at a firm's office to listen in on trader conversations the firm is taping as they are occurring.
- Provide that the Antitrust Division receive complaints of possible violations and direct taping of particular traders in response to complaints, or on its own initiative, to deter and ferret out violations of the proposed order.
- Provide for punishment by civil and criminal contempt, if it is violated. Thus, traders with knowledge of the proposed order could, after hearing and judgment, be required to pay large monetary penalties or even be sentenced to jail, if found to be in willful violation of the prohibitions.

Also, the Department designated an attorney in the Division's New York Field Office, Geoffrey Swaebe, to begin serving immediately as the Antitrust Division's principal Nasdaq compliance officer.

The Antitrust Division has established a hotline to receive complaints about Nasdaq or any other subject, which is operative as of today at 1-888-7DOJATR.

Among the 24 firms are some of Nasdaq's biggest market makers. They are:

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.

(MORE)

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Merrill, Lynch, Pierce, Fenner & Smith Inc.
Morgan Stanley & Co. Inc.
Nash, Weiss & Co.
OLDE Discount Corp.
PaineWebber Inc.
Piper Jaffray Inc.
Prudential Securities Inc.
Saloman Brothers Inc.
Sherwood Securities Corp.
Smith Barney Inc.
Spear, Leeds & Kellogg LP (Troster Singer)
UBS Securities LLC

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96-343

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Attorney for Plaintiff United States of America

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.;
HAMRECHT & 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.; PAINWEBBER
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.

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

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.

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.^{1/} Thus, in

¹ 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. Dealer Quotes and the Dealer Spread.

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

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 --

	<u>Bid</u>		<u>Ask</u>
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,

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.^{1/}

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 $1/2$

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.

* * * * *

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.

* * * * *

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

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.

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. dismissed, 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."

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 $1/8$ th 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. Phone Calls Were Used To Obtain Compliance.

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.

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

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 Committee¹³ 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

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. Issues, one of which was the "spreads problem." Markets Subcommittee was composed exclusively of leading market-making firms; however, certain others attended these meetings as well. At one such meeting on March 24, 1992, a NASD staff member took notes, which indicate that the participants at the March 24

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 Forbes 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."

8. 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 eighths?

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.

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

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. The Decline in Adherence to the Quoting Convention.

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. The Market Makers' Pricing Behavior Was Different in a Comparable Market.

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

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 market 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

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

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.

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

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.

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

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.^{12/}

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

^{12/} 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

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. § 15(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

^{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. s 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.

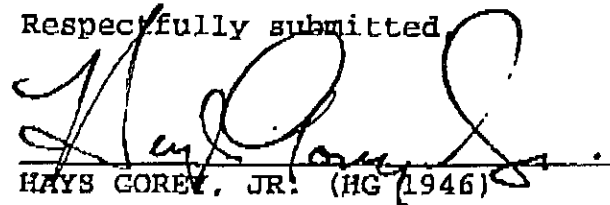
XI.

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,



HAYS GOREY, JR. (HG 1946)

Attorney
U.S. Department of Justice
Antitrust Division
600 E Street, N.W.
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Washington, D.C. 20530
Tel: 202/307-6200
Fax: 202/16-8544

CERTIFICATE OF SERVICE

On July 17, 1996, I caused a copy of the Government's
Competitive Impact Statement to be served by first-class mail
upon:

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**DONALDSON, LUFKIN & JENRETTE
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MAYER & SCHWEITZER, INC.

Catherine Ludden
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**MERRILL LYNCH, PIERCE, FENNER
& SMITH, INCORPORATED**

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UBS SECURITIES LLC
Philip L. Graham, Jr.
Sullivan & Cromwell
125 Broad Street
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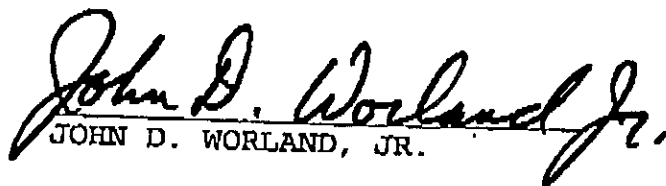
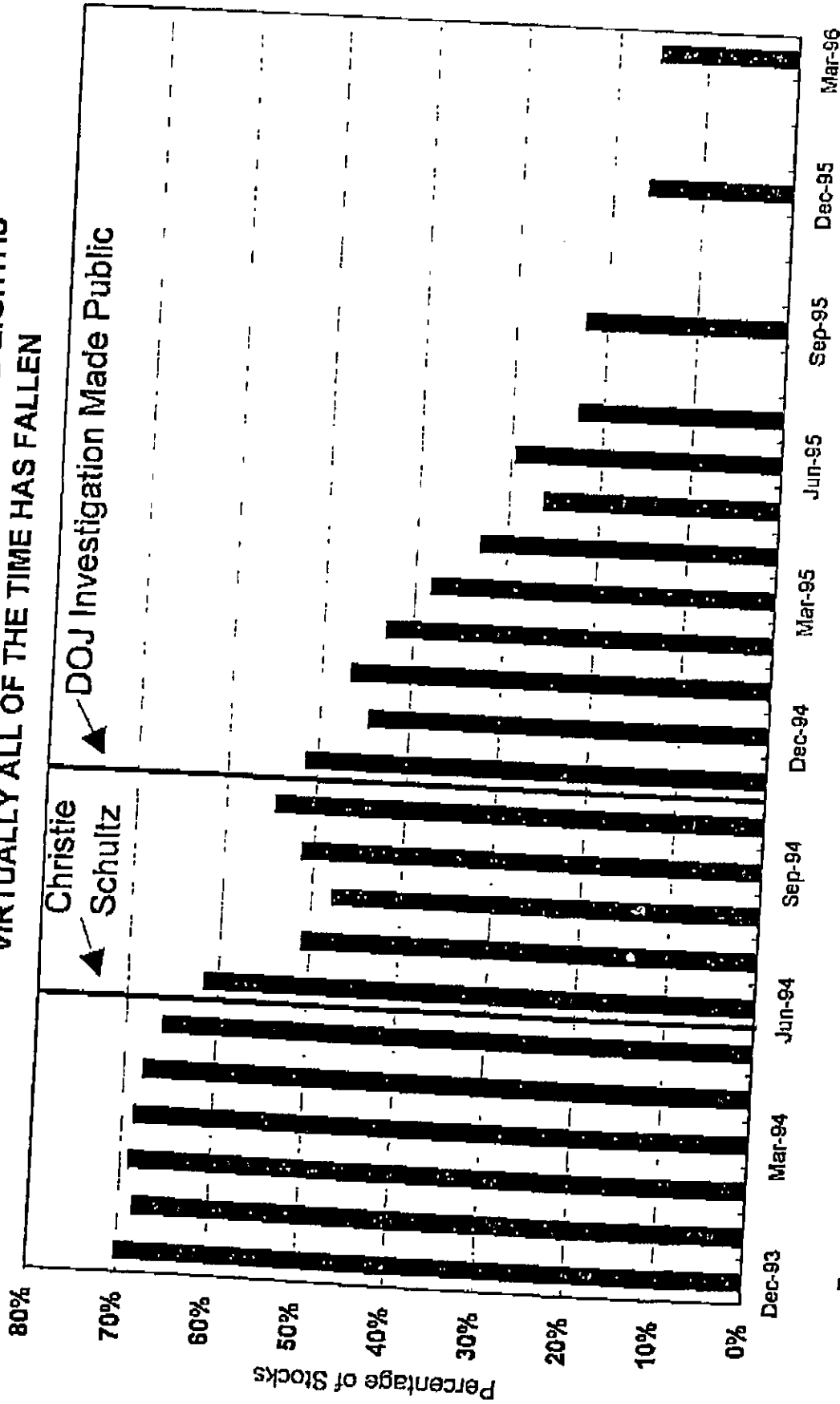

JOHN D. WORLAND, JR.

EXHIBIT A

THE PROPORTION OF STOCKS THAT AVOID ODD EIGHTHS
VIRTUALLY ALL OF THE TIME HAS FALLEN

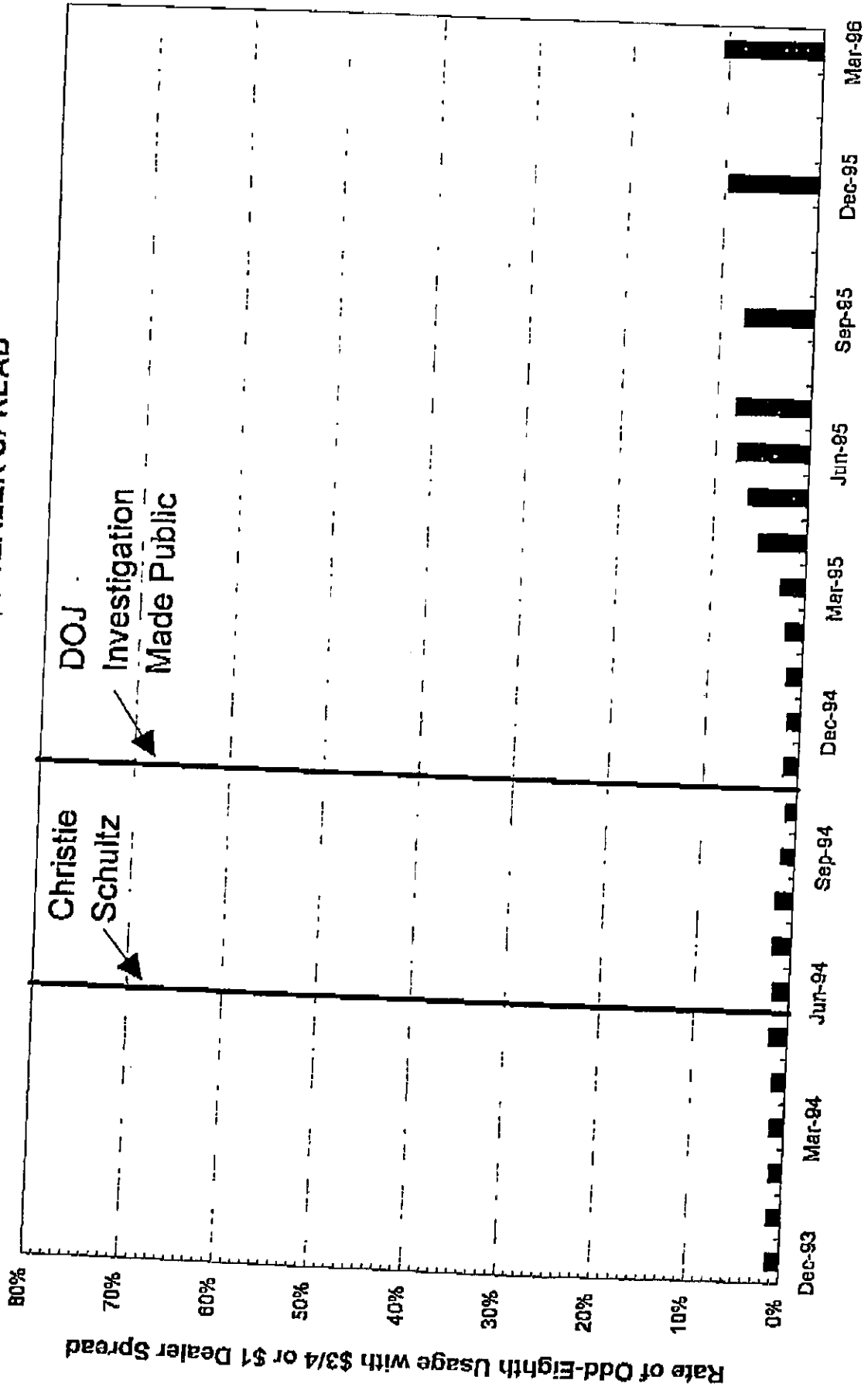


For purposes of this chart, a stock is considered to avoid odd-eighths virtually all of the time in a given month if the time-weighted proportion of dealer quotes that use only quarters is at least 99%.

Source: NASD Market Maker data on 224 leading Nasdaq securities.

EXHIBIT B

**NASDAQ DEFENDANTS
 ONLY RECENTLY BEGAN TO COMPETE WITH ODD-EIGHTHS
 IN STOCKS WITH \$3/4 OR \$1 DEALER SPREAD**



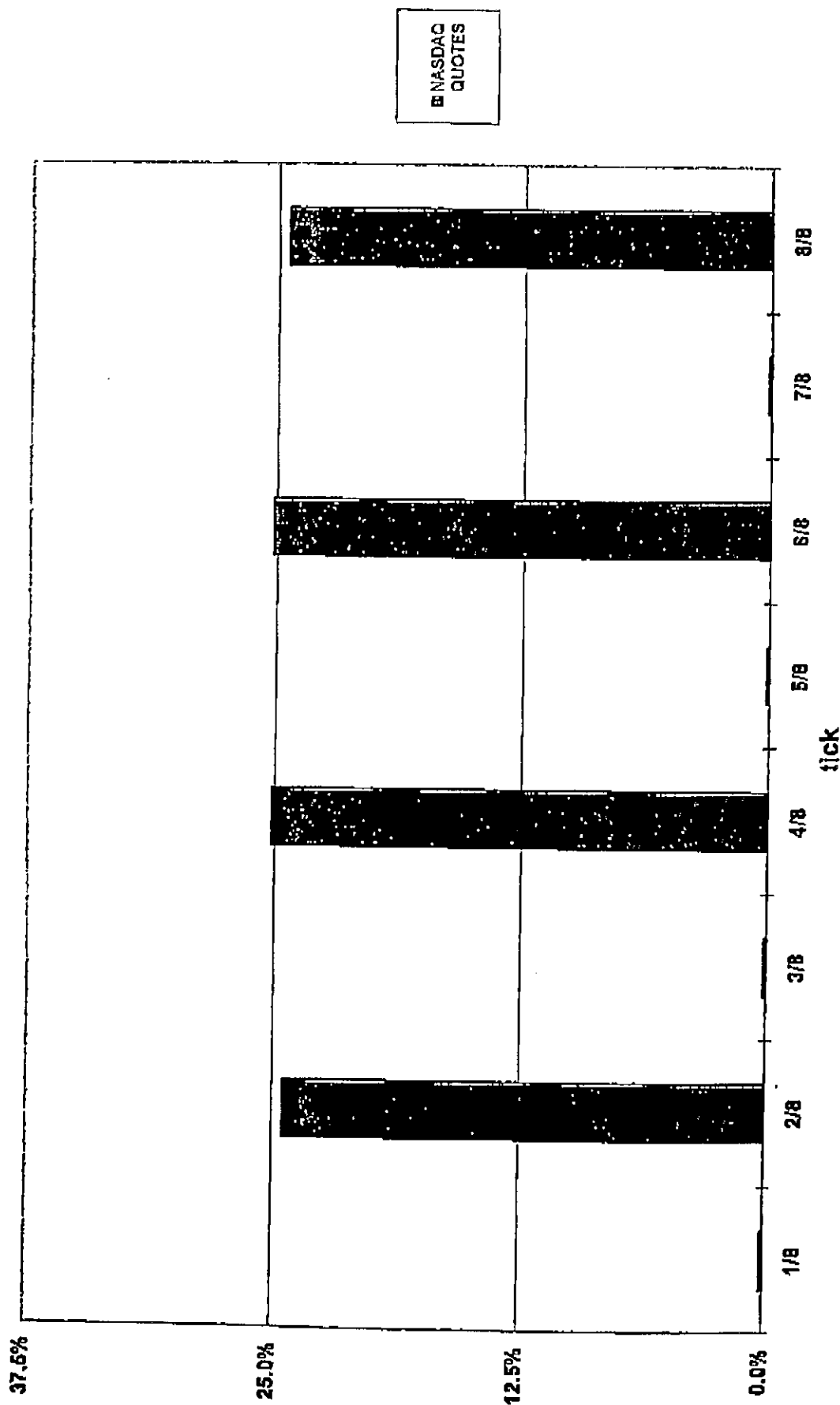
Source: NASD Market Maker Data on 224 leading Nasdaq stocks.

Quotes are time-weighted.

EXHIBIT C

NASDAQ DEFENDANTS

Odd Eighths are Systematically Avoided on Nasdaq



Distribution of eighth point ticks for the ten largest volume stocks that used odd eighths on Nasdaq less than 1% of the time. (AAPL, AMAT, AMGN, CALL, CSCO, INTC, LOTS, MSFT, SYMS, USHC)
Source: Market Maker Price Movement Report, May 1-20, 1994

EXHIBIT D

Microsoft
Time-Weighted Percentage of Odd-Eighth Bids and Asks

Market	maker	Dec 93	Jan 94	Feb 94	Mar 94	Apr 94	May 94	Jun 94	Jul 94	Aug 94	Sep 94	Oct 94	Nov 94	Dec 94	Jan 95	Feb 95	Mar 95	Apr 95	May 95	Jun 95	Jul 95	Sep 95	Dec 95	Mar 96
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: NASD Market Maker Price Movement Report

Apple Time-Weighted Percentage of Odd-Eighth Bids and Asks

Market	Major	Dec 83	Jan 84	Feb 84	Mar 84	Apr 84	May 84	Jun 84	Jul 84	Aug 84	Sep 84	Oct 84	Nov 84	Dec 84	Jan 85	Feb 85	Mar 85	Apr 85	May 85	Jun 85	Jul 85	Sep 85	Dec 85	Mar 86
1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22		4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0</																		

Amgen

Time-Weighted Percentage of Odd-Eighth Bids and Asks

Market	Dec 93	Jan 94	Feb 94	Mar 94	Apr 94	May 94	Jun 94	Jul 94	Aug 94	Sep 94	Oct 94	Nov 94	Dec 94	Jan 95	Feb 95	Mar 95	Apr 95	May 95	Jun 95	Jul 95	Sep 95	Dec 95	Mar 96
1	0	0	0	0	0	0	2	48	48	48	48	48	47	53	40	42	44	45	53	47	52		
2	0	0	0	0	0	5	41	52	49	52	49	50	48	54	50	51	50	44	48	45	49	44	47
3	0	0	0	0	0	4	42	55	57	50	58	45	52	52	48	51	42	48	49	38	50	27	20
4						4	33	44	51	39	52	43	57	51	38	48	47	44	50	50	50	42	52
5	0	0	0	0	0	3	38	56	50	52	50	43	38	47	52	37	41	28	31	37	28	27	41
6	0	0	0	0	0	2	55	46	54	38	43	43	51	57	54	44	49	58	51	51	48	51	53
7	0	0	0	0	0	4	53	44	42	36	51	57	52	45	48	50	51	52	53	50	50		
8	5	0	0	0	0	3	50	45	41	48	52	64	49	59	52	48	43	57	54	51	41	49	47
9	0	0	0	0	0	2	42	46	44	48	44	34	56	48	58	54	56	42	42	48			
10	0	0	0	0	1	8	50	47	44	53	41	41	47	42	48	39	47	43	48	51	41	42	44
11	0	0	0	0	0	1	53	45	42	48	46	41	48	50	58	50	48	52	44	54	43	49	51
12	0	0	0	0	0	4	48	43	49	50	48	48	44	58	53	46	60	54	51	48	52	54	48
13	0	0	0	0	0	6	38	48	53	45	45	49	47	50	54	50	55	43	53	48	59	53	54
14	0	0	0	0	0	1	47	57	49	48	58	52	45	48	54	50	55	43		51	50	50	45
15	0	0	0	0	0	1	50	54	56	57	57	54	50	48	48	50	50	50	49	51	50	45	45
16	0	0	0	0	0	4	51	48	38	40	43	49	52	46	47								
17	0	0	0	0	0	6	42	38	55	53	51	47	53	51	50	47	54	37	52	51	47	54	52
18	0	0	0	0	0	4	50	53	54	45	41	56	57	49	50	48	57	51	50	54	53	48	52
19	0	0	0	0	0	4	47	42	47	54	44	42	54	58	53	48	52	44	51	50	50	57	48
20	0	0	0	0	0	5	51	40	43	53	43	55	52	50	48	44	58	52	53	55	45	52	42
21	0	0	0	0	0	5	46	39	41	45	52	45						57	48	47	50	50	
22	0	0	0	0	0	4	51	53	53	50	51	48	49	45	48	49	49	49	54	48	55	46	46
23	0	0	0	0	0	8	38	42	48	54	48	50	53	59	43	55	51	52	44	48	52	51	53
24	0	0	0	0	0	5	21	40	38	33	25	47	53	38	45	28	42	19	23	26	17	47	50

Source: NASD Market Maker Pairs Movement Report

Cisco Systems

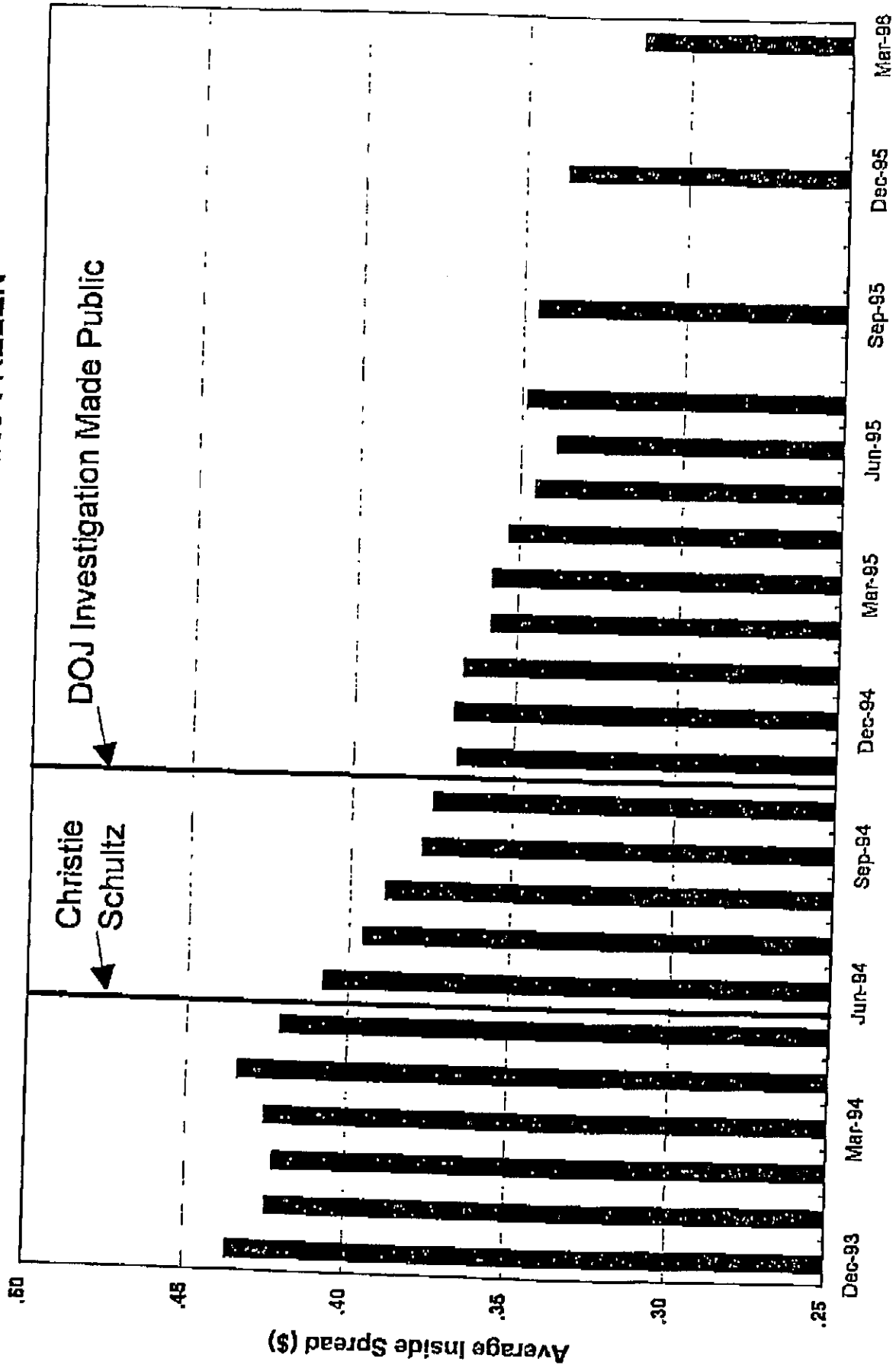
Time-Weighted Percentage of Odd-Eighth Bids and Asks

Market	Dec 93	Jan 94	Feb 94	Mar 94	Apr 94	May 94	Jun 94	Jul 94	Aug 94	Sep 94	Oct 94	Nov 94	Dec 94	Jan 95	Feb 95	Mar 95	Apr 95	May 95	Jun 95	Jul 95	Sep 95	Dec 95	Mar 96
1	0	0	0	0	0	1	52	53	53	54	44	50	57	53	53	47	49	54	54	47	53	45	49
2	0	0	0	0	0	1	61	52	49	58	48	48	47	52	54	48	52	52	52	50	48	46	53
3	0	0	0	0	0	4	39	47	48	40	59	57	43	38	48	37	52	50	47	48	52	52	47
4	0	0	0	0	0	5	50	51	53	40	47	44	46	33	52	48	48	41	47	42	50	50	52
5	0	0	0	0	0	4	43	49	48	53	52	48	32	52	52	49	41	43	40	41	45	45	48
6	0	0	0	0	0	4	48	52	53	49	45	43	48	44	54	47	41	47	36	44	41	50	49
7	0	0	0	0	0	8	44	49	45	63	43	50	50	50	43	42	45	49	43	44	51	54	50
8	0	0	0	0	0	0	40	61	47	58	40	43	50	52	54	56	50	52	48	50	54	54	53
9	0	0	0	0	0	2	61	50	58	40	47	43	51	37	47	53	49	49	46	48	51	50	47
10	0	0	0	0	0	7	44	52	41	49	52	50	47	50	51	39	47	52	53	52	47	48	39
11	0	0	0	0	0	1	43	58	55	57	48	44	52	43	51	47	48	52	51	43	43	49	47
12	0	0	0	0	0	3	47	56	48	48	48	58	59	50	43	49	40	47	42	44	54	52	50
13	0	0	0	0	0	2	53	52	54	48	58	47	49	49	52	47	48	53	49	50	50	50	51
14	0	0	0	0	0	4	43	54	31	61	48	58	54	44	58	44	38	45	47	57	50	50	53
15	0	0	0	0	0	4	42	47	59	51	36	50	51	45	56	35	55	48	51	52	51	50	53
16	0	0	0	0	0	4	50	57	47	45	43	55	53	53	56	59	50	52	50	49	39	52	48
17	0	0	0	0	0	4	47	39	54	49	47	48	50	44	50	57	53	50	48	44	45	50	53
18	0	0	0	0	0	2	52	52	55	48	46	47	52	61	52	50	44	47	51	44	51	52	46
19	0	0	0	0	0	5	51	48	47	57	45	51	35	45	59	47	47	49	49	50	49	43	57
20	0	0	0	0	0	0	29	48	55	55	43	53	50	43	47	53	51	49	42	43	48	48	57
21	0	0	0	0	0	0	51	48	58	52	43	53	50	51	51	51	48	50	48	49	52	48	53
22	0	0	0	0	0	2	39	35	53	47	58	42	50	43	51	48	40	43	52	44	49	47	45
23	0	0	0	0	0	0	45	47	48	53	50	47	51	52	51	41	46	48	42	48	47	47	45
24	0	0	0	0	0	7	45	47	48	53	50	47	51	52	51	41	46	48	42	48	47	47	45

Source: NASD Market Maker Price Movement Report

EXHIBIT E

**CONSUMERS ARE PAYING LESS
BECAUSE AVERAGE INSIDE SPREAD HAS FALLEN**

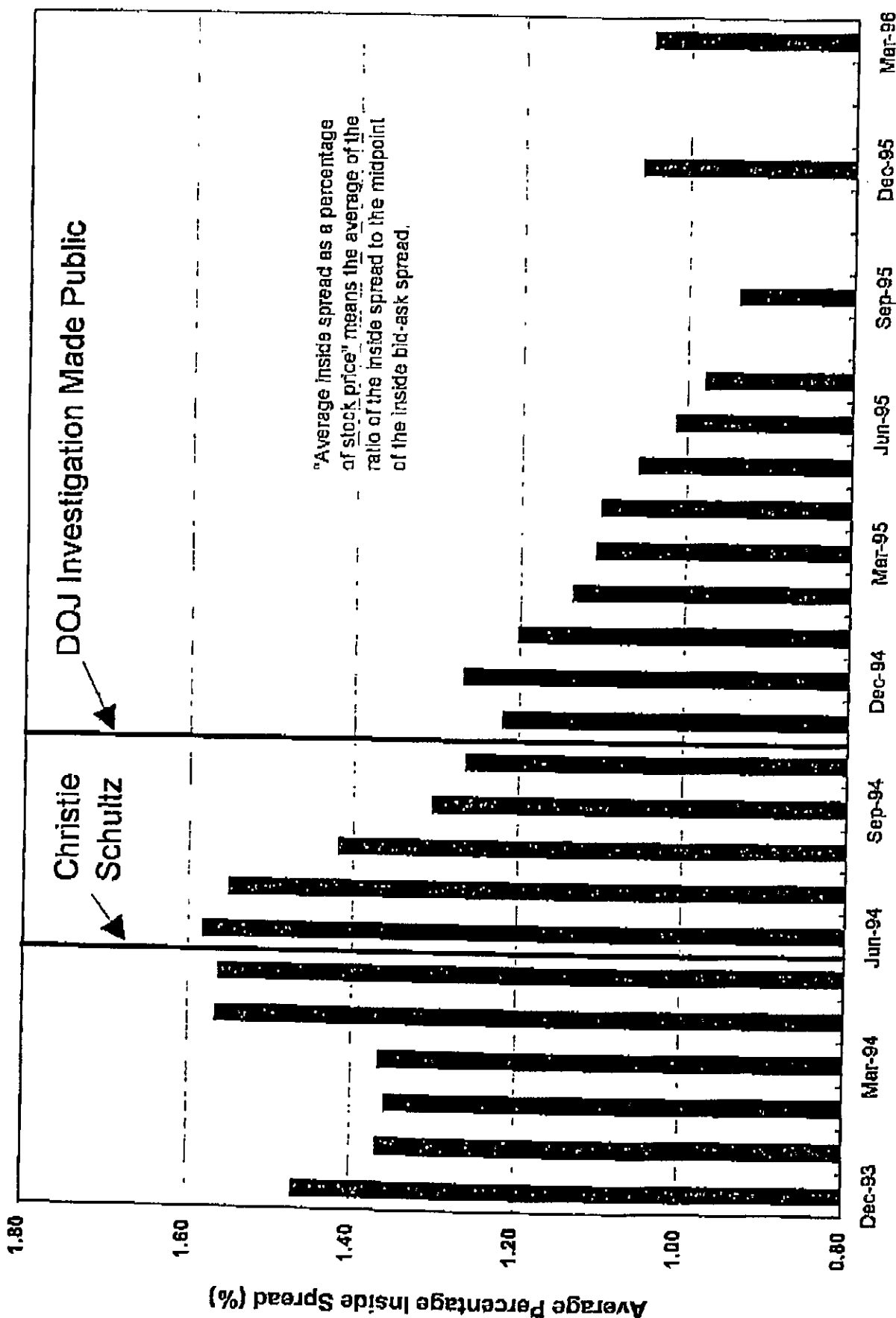


Averages are time-weighted.

Source: NASD Market Maker Data on 224 leading Nasdaq stocks.

EXHIBIT F

AVERAGE INSIDE SPREAD AS A PERCENTAGE OF STOCK PRICE HAS FALLEN

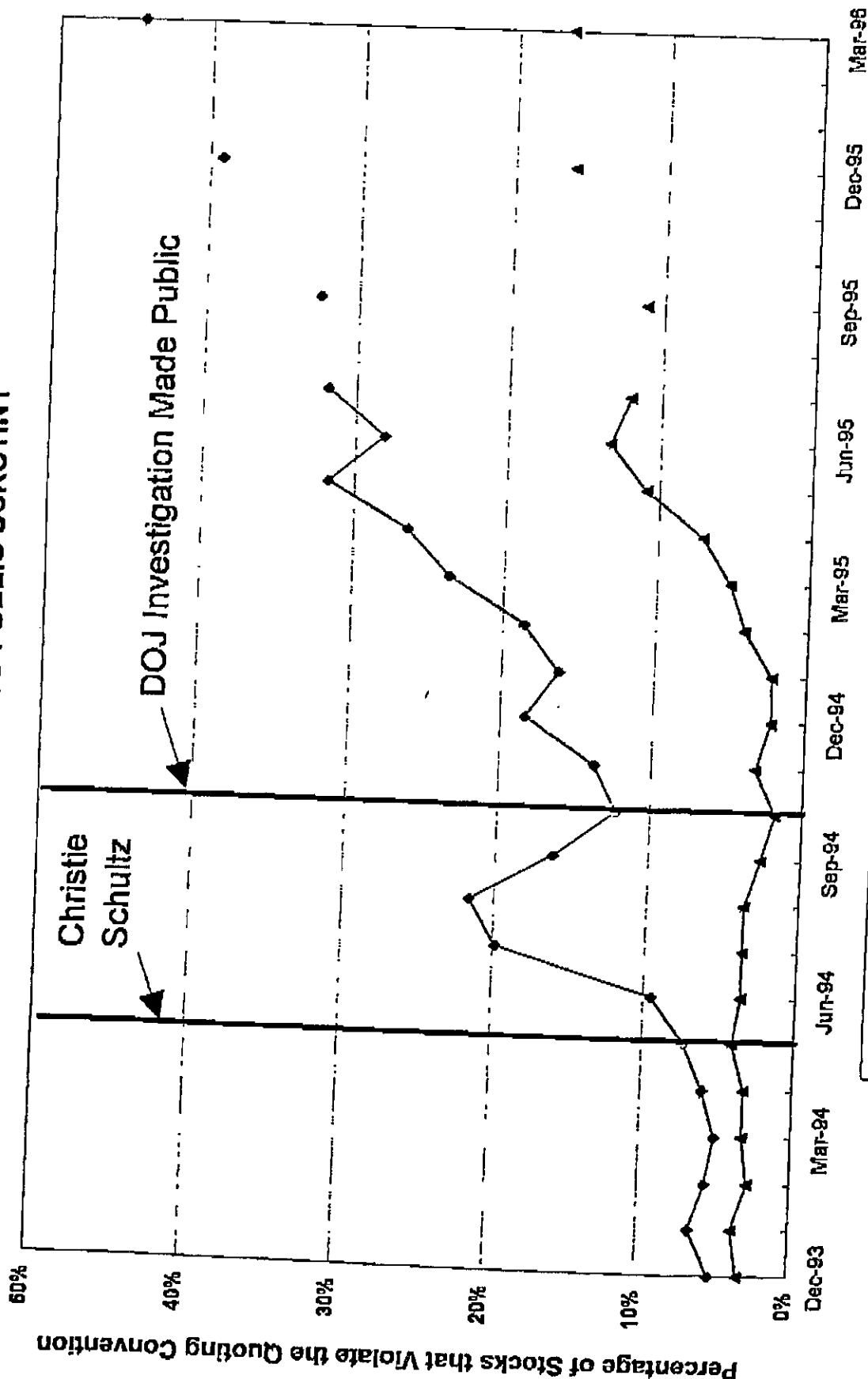


Source: NASD Market Maker Data on 224 leading Nasdaq stocks.

Averages are time-weighted.

EXHIBIT G

MARKET MAKER COMPETITION HAS INCREASED IN RESPONSE TO PUBLIC SCRUTINY



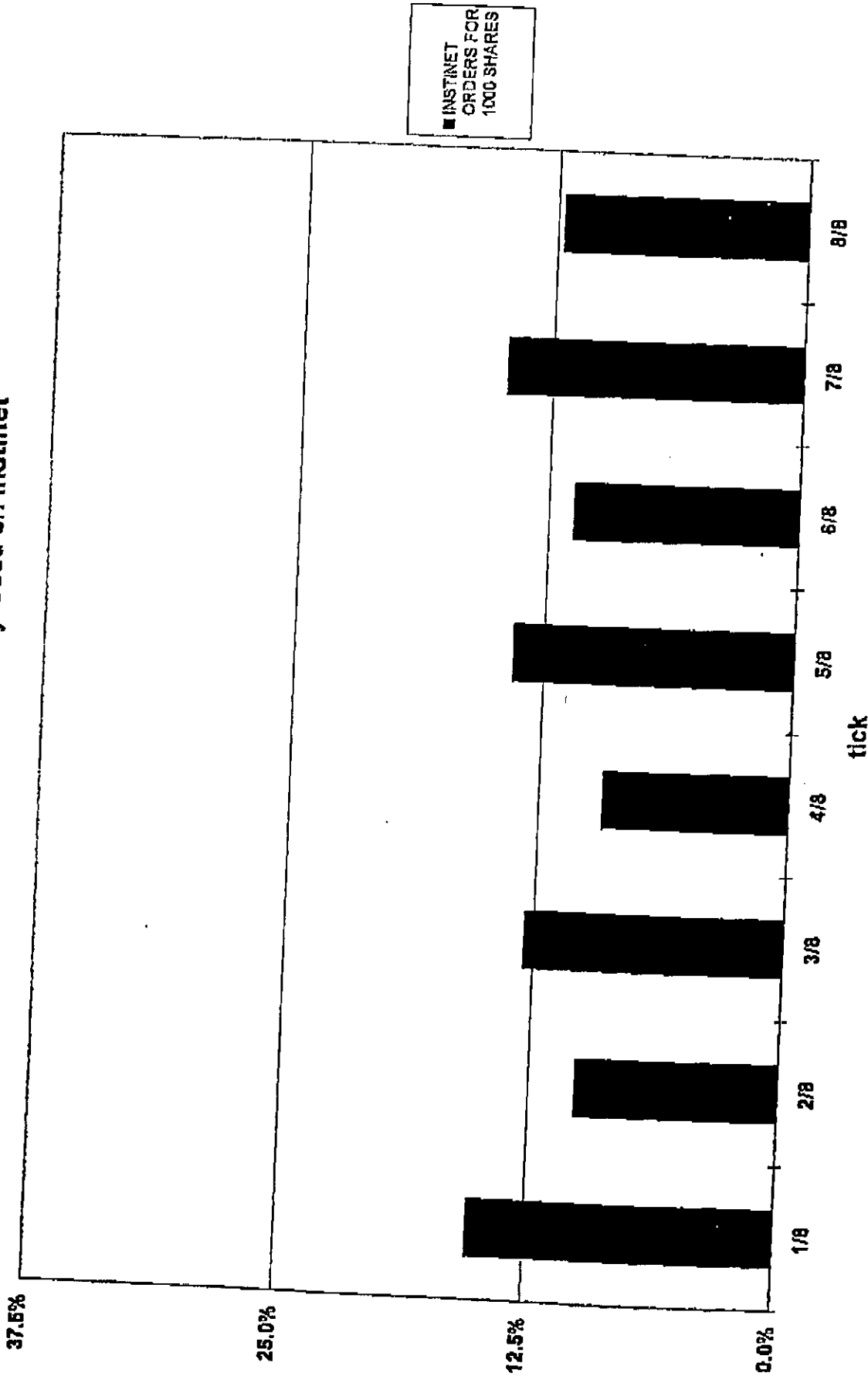
"To violate the quoting convention" means to quote odd eighths with a 3/4 or greater dealer spread.

Source: NASD Market Maker data on 224 leading Nasdaq stocks.

Percentages of quotes in violation are time-weighted.

EXHIBIT H

NASDAQ DEFENDANTS **Odd Eighths are Routinely Used on Instinet**



Distribution of eighth point ticks for the ten largest volume stocks that used odd eighths on Nasdaq less than 1% of the time. (AAPL, AMAT, AMGN, CALL, CSCO, INTC, LOTS, MSFT, SYBS, USHC)
 Source: Instinet, May 1-20, 1994