CURRICULUM VITAE

LAWRENCE EUGENE HARRIS

Contact Information

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Professional Experience

Fred V. Keenan Chair in Finance, Marshall School of Business, University of Southern California, January 1998-present; tenured Professor of Finance and Business Economics, September 1991-present; tenured Associate Professor, September 1988-August 1991; Assistant Professor, September 1982-August 1988.

Director, Clipper Fund, Inc., December 2005-present.

Director, Interactive Brokers Group, Inc., July 2007-present.

Director, USC Marshall School of Business Center for Investment studies, August 2007-present.

Academic Research Coordinator, Institute for Quantitative Research in Finance (the Q-Group), January 1990-present.

Member, Financial Economists Roundtable, July 2007-present.

Chief Economist, Madison Tyler LLC, January 2006-April 2006.

Senior Managing Director, Quantitative Research and Development, UNX, Inc., October-December 2005; full-time consultant, June-September 2005.

Chief Economist and Director of the Office of Economic Analysis, US Securities and Exchange Commission, July 2002-June 2004.

Visiting Scholar, Office of Economic Research, New York Stock Exchange, New York, September 1989-August 1990.

Visiting Scholar, Stern School of Business, New York University, September 1989-August 1990.

Economic Fellow, Office of Economic Analysis, Securities Exchange Commission, Washington, D.C., July 1988-June 1989.

Education

Ph.D., University of Chicago, December 1982 (Economics)
M.A., University of Chicago, June 1980 (Economics)
B.A., University of California, San Diego, June 1978 (Management Science), Summa Cum Laude

Dissertation

"A Theoretical and Empirical Analysis of the Distribution of Speculative Prices and of the Relation between Absolute Price Change and Volume."

Robert Lucas, Chairman, Gale Johnson, Arnold Zellner, Jonathan Ingersoll

Research Interests

Financial market microstructure, investment management, volatility, econometrics

Books and Monographs

Harris, Larry, *Trading and Exchanges: Market Microstructure for Practitioners*, an introductory textbook to the economics of market microstructure, Oxford University Press, 2003, 643pp.

Harris, Larry, *Instructor's Manual to Trading and Exchanges: Market Microstructure for Practitioners*, Oxford University Press, 2004.

Harris, Lawrence, "Optimal Dynamic Order Submission Strategies in Some Stylized Trading Problems," *Financial Markets, Institutions & Instruments* v. 7 no. 2, 1998 (refereed).

Harris, Lawrence, "Liquidity, Trading Rules and Electronic Trading Systems," *New York University Salomon Center Monograph Series in Finance and Economics*, Monograph 1990-4, February 1991 (refereed).

Refereed Articles

Edwards, Amy, Lawrence Harris and Michael S. Piwowar, "Corporate Bond Market Transaction Costs and Transparency,", *Journal of Finance,* v 62 (3) June 2007, 1421-51.

Harris, Lawrence and Michael S. Piwowar, "Municipal Bond Liquidity," *Journal of Finance*, v. 61 (3), June 2006, 1361-1397.

Harris, Lawrence and Hans Dutt, "Position Limits for Cash Settled Derivative Contracts," *Journal of Futures Markets*, v. 25 (10) October 2005, 945-65.

Harris, Lawrence and Venkatesh Panchapagesan, "The Information-Content of the Limit Order Book: Evidence from NYSE Specialist Trading Decisions,"*Journal of Financial Markets*, 2005, 25-67.

Fridman, Moshe and Lawrence Harris, "A Maximum Likelihood Approach for Stochastic Volatility Models," *Journal of Business and Economic Statistics* v. 16, No. 3, July 1998, 284-291.

Harris, Lawrence and Joel Hasbrouck, "Market versus Limit Orders: The SuperDOT Evidence on Order Submission Strategy," *Journal of Financial and Quantitative Analysis* v. 31, no. 2, June 1996, 213-231.

Harris, Lawrence, George Sofianos and Jim Shapiro, "Program Trading and Intraday Volatility," *Review of Financial Studies*, v. 7, no. 4 1994, 654-86. Abstracted in *The CFA Digest*, v. 25, no. 2, Spring 1995, 28-30.

Harris, Lawrence, "Minimum Price Variations, Discrete Bid/Ask Spreads and Quotation Sizes," *Review of Financial Studies* v. 7, no. 1, 1994, 149-178.

Harris, Lawrence, "Consolidation, Fragmentation, Segmentation and Regulation," *Financial Markets, Institutions & Instruments* (formerly *the NYU Salomon Center Monograph Series in Finance and Economics*) v. 2, no. 5, December 1993, 1-28 (lead article).

Reprinted in *Global Equity Markets: Technological, Competitive and Regulatory Challenges*, Robert A. Schwartz, Editor; Irwin: Chicago, 1995, p. 269-301.

Harris, Lawrence, "Stock Price Clustering and Discreteness," *Review of Financial Studies* v. 4 no. 3, 1991, 389-415 (lead article).

Reprinted in *Microstructure: The Organization of Trading and Short Term Price Behavior*, Hans R. Stoll, Editor; Edward Elgar: London, 1998.

Harris, Lawrence, "Estimation of Stock Price Variances and Serial Covariances from Discrete Observations," *Journal of Financial and Quantitative Analysis* v. 25 no. 3, September 1990, 291-306 (lead article).

Harris, Lawrence, "Statistical Properties of the Roll Serial Covariance Bid/Ask Spread Estimator," *Journal of Finance* v. 45, no. 2, June 1990, 579-590.

Harris, Lawrence, "The Economics of Cash Index Alternatives," *Journal of Futures Markets* v. 10 no. 2, April 1990, 179-94.

Harris, Lawrence, "S&P 500 Cash Stock Price Volatilities," *Journal of Finance* v. 44, no. 5, December 1989, 1155-1176.

Harris, Lawrence, "The October 1987 S&P 500 Stock-Futures Basis," *Journal of Finance* v. 44, no. 1, March 1989, 77-99.

Reprinted in *Futures Markets*, A. G. Malliaris and Walter F. Mullady, Sr. editors, Edward Elgar: London, 1995.

Harris, Lawrence, "A Day-end Transaction Price Anomaly," *Journal of Financial and Quantitative Analysis* v. 24 no. 1, March 1989, 29-45.

Glosten, Lawrence and Lawrence Harris, "Estimating the Components of the Bid-Ask Spread," *Journal of Financial Economics* v. 21 no. 1, May 1988, p. 123-142.

Reprinted in *Microstructure: The Organization of Trading and Short Term Price Behavior*, Hans R. Stoll, Editor; Edward Elgar: London, 1998.

Harris, Lawrence, "Transactions Data Tests of the Mixture of Distributions Hypothesis," *Journal of Financial and Quantitative Analysis* v. 22 no. 2, June 1987, p. 127-141 (lead article).

Harris, Lawrence and Eitan Gurel, "Price and Volume Effects Associated with Changes in the S&P 500 List: New Evidence for the Existence of Price Pressures," *Journal of Finance* v. 41 no. 4, September 1986, p. 815-829.

Harris, Lawrence, "A Transactions Data Study of Weekly and Intradaily Patterns in Stock Prices," *Journal of Financial Economics* v. 16 no. 1, June 1986, p. 99-117.

Harris, Lawrence, "Cross-security Tests of the Mixture of Distributions Hypothesis," *Journal of Financial and Quantitative Analysis* v. 21 no. 1, March 1986, p. 39-46.

Harris, Lawrence, "How to Profit from Intradaily Stock Returns," *Journal of Portfolio Management* v. 12 no. 2, Winter 1986, p. 61-64.

Proceedings, Discussions and Abstracts

Harris, Lawrence, "Market Microstructure and the Regulation of Markets," AIMR Conference Proceedings, *Equity Trading: Execution and Analysis*, 2003, 60-66.

Harris, Lawrence, L'afffichage des ordres et l'échelon de cotation," (French translation of "Does a Large Minimum Price Variation Encourage Order Display?") Chapter 1 in *Organisation et qualité des marchés financiers* (Presses Universitaires de France: Paris), 1997, 15-31.

Harris, Lawrence, "Order Exposure and Parasitic Traders," *Equity Market Structure for Large- and Mid-Cap Stocks*, Deutsche Börse, December 12, 1997, 31-50.

Harris, Lawrence, "Circuit Breakers and Program Trading Limits: What Have We Learned?," in R.E. Litan and A.M. Santomero, eds.: *Brooking-Wharton Papers on Financial Services* (The Brookings Institution, Washington D.C.), 1998, 17-63.

Harris, Lawrence, "Circuit Breakers and Program Trading Limits: What Have We Learned?," *Brooking-Wharton Papers on Financial Services*, 1998, 17-63.

Harris, Lawrence, "Optimal Dynamic Order Submission Strategies in Some Stylized Trading Problems," Abstract, *Journal of Finance* v. 50, no. 3, July 1995, 976.

Harris, Lawrence, "Brokerage, Market Fragmentation, and Securities Market Regulation: Comment," in *The Industrial Organization and Regulation of the Securities Industry*, Andrew W. Lo, editor, The University of Chicago Press: Chicago, 1995, 56-58.

Harris, Lawrence, "Consolidation, Fragmentation, Segmentation and Regulation," Abstract, *Journal of Finance* v. 48, no. 3, July 1993, 1092-3.

Harris, Lawrence, "On the Existence of an Optimal Tick Size: Comment," *The Review of Futures Markets* v. 10 no. 1, May 1992, 73-74.

Harris, Lawrence, George Sofianos and Jim Shapiro, "Program Trading and Intraday Volatility," *Proceedings of the Seminar on the Analysis of Security Prices* v. 35 no. 1, May 1990.

Harris, Lawrence, "The Economics of Cash Index Alternatives," *Proceedings of the Seminar on the Analysis of Security Prices* v. 34 no. 1, May 1989, p. 37-83.

Harris, Lawrence, "Statistical Analysis of Price and Basis Behavior, October 12- 25, 1987, S&P 500 Futures and Cash: Commentary," *The Stock Market: Bubbles, Volatility and Chaos*, Gerald P. Dwyer, Jr. and Rick Hafer, editors, Proceedings of the Federal Reserve Bank of Saint Louis 1988 Economic Policy Conference: Kluwer, 1989, p. 171-174.

Harris, Lawrence, "The Dangers of Regulatory Overreaction to the October 1987 Stock Market Crash," *Cornell Law Review* v. 74 no. 5, July 1989, 927-942.

Harris, Lawrence, "Predicting Contemporary Volume with Historic Volume at Differential Price Levels--Evidence Supporting the Disposition Effect: Discussion," *Journal of Finance* v. 43 no. 3, July 1988, p 698-699.

Glosten, Lawrence and Lawrence Harris, "Estimating the Components of the Bid/Ask Spread," *Proceedings of the Seminar on the Analysis of Security Prices* v. 30 no. 2, November 1985, p. 349-382.

Harris, Lawrence, "Weekly and Intradaily Patterns in Stock Returns," *Proceedings of the Seminar on the Analysis of Security Prices* v. 29 no. 2, November 1984, p. 253-276.

Book Chapters

Harris, Lawrence, "The Regulatory Impediments to Viable Cash Index Securitization," *Modernizing US Securities Regulation: Economic and Legal Perspectives*, Kenneth Lehn and Robert Kamphuis, Editors; Business One Irwin: Homewood IL, 1993, p. 499-508.

Reprinted in *World Fund Industry* no. 3, February 1995, p. 37-40.

Harris, Lawrence, "The October 1987 Stock Market Crash: Lingering Vulnerabilities? The Dangers of Regulatory Overreaction," *Economic Vulnerabilities: Challenges For Policy Makers*, Susan Irving, Editor; Curry Foundation: Washington D.C., 1988, p. 71-82.

Harris, Lawrence, "Intraday Price Patterns," *European Symposium Book on Stock Regularities*, Elroy Dimson, Editor; Cambridge University Press: Cambridge, 1988, p. 91-108.

Minor Publications and Regulatory Letters

Harris, Lawrence, "Breaking the Futures Monopoly," Forbes.com Commentary, November 6, 2006, at http://www.forbes.com/opinions/2006/11/03/options-monopoly-cboe-cme-oped-cx_lh_1106options.html

Harris, Lawrence, "Comment Letter to SEC re Regulation NMS," February 5, 2005, at http://www.sec.gov/rules/proposed/s71004/lharris020505.pdf.

Harris, Lawrence, "Floor versus Automated Trading" *USC Business*, Fall/Winter 1998, p. 50-53.

Harris, Lawrence, "The Everything Exchange," *USC Business*, Spring/Summer 1997, p. 46-51.

Harris, Lawrence, "A Financial Analysis of Santa Monica's Interior Replacement Pilot Program," *Los Angeles Apartment Age*, April 1985.

Working Papers and Manuscripts

Harris, Lawrence and Stuart Mayhew, "Market Fragmentation Metrics," January 2006.

Coughenour, Jay F. and Lawrence Harris, "Specialist Profits and the Minimum Price Increment," March 2004.

Harris, Lawrence, "Trading in Pennies: A Survey of the Issues," December 1999.

Harris, Lawrence, Order exposure and parasitic traders, December 1997.

Harris, Lawrence, "Decimalization: A Review of the Arguments and Evidence," March 1997.

Harris, Lawrence, "Does a Large Minimum Price Variation Encourage Order Display?" October 1996.

Harris, Lawrence, "The Economics of Best Execution," March 1996.

Harris, Lawrence, "Stock Price Clustering, Discreteness and Bid/Ask Spreads," December 1989.

Harris, Lawrence, "The Power of the Roll Serial Covariance Bid/Ask Spread Estimator," February 1989.

Harris, Lawrence, "The Joint Distribution of Speculative Prices and of Daily Trading Volume," May 1983.

Testimony

"Testimony on H.R. 1053: The Common Cents Stock Pricing Act of 1997," *Hearings before the Subcommittee on Finance and Hazardous Materials of the Committee on Commerce, House of Representatives on H.R. 1053*, Serial No. 105-18, April 16, 1997, p. 226-229.

Grants Received

USC Fund for Innovative Teaching, “The Corporate Achievement Trading and Exchange Game,” 1991.

Institute for Quantitative Research in Finance, 1989 (with Mark Weinstein).

Curry Foundation, 1988.

Mid America Institute for Public Policy Research, 1988.

Institute for Quantitative Research in Finance, 1985 (with Lawrence Glosten).

Columbia Center for the Study of Futures Markets, 1985-1986 (with David Hirshleifer).

University of Southern California, School of Business Administration, Dean's Research Scholar, 1987-1995.

University of Southern California, School of Business Administration, Summer Research Grants, every summer in residence.

Research Honors

Member, Financial Economists Roundtable, January 2007-present.

Second Prize, Roger F. Murray Prize Competition, The Institute for Quantitative Research in Finance, 2004, for “Bond Transaction Costs.”

Fuh Hwa Bond Research Award for the best fixed income paper presented at the 12th Conference on the Theories and Practices of Securities Markets, Kaohsiung, Taiwan, 2004, for “Secondary Trading Costs in Municipal Bond Market.”

First Prize, Roger F. Murray Prize Competition, The Institute for Quantitative Research in Finance, 2002, for “Why People Trade?”

Winner, Paris Bourse Prize for best paper on French equity markets submitted to the Organization and Quality of Equity Markets Conference, 1996, for “Does a Large Minimum Price Variation Encourage Order Display?”

Co-winner, INQUIRE Europe, best paper presented at Paris Meetings, 1992, for “Market versus Limit Orders: The SuperDOT Evidence on Order Submission Strategy” (written with Joel Hasbrouck).

Co-winner, New York Stock Exchange Prize for best paper in the Review of Financial Studies - Western Finance Association - New York Stock Exchange Microstructure Symposium, 1990, for “Stock Price Clustering and Discreteness.”

Second Prize, Roger F. Murray Prize Competition, The Institute for Quantitative Research in Finance, 1990, for “Stock Price Clustering and Discreteness.”

Second Prize, Roger F. Murray Prize Competition, The Institute for Quantitative Research in Finance, 1987, for “Estimating the Components of the Bid-Ask Spread” (written with Lawrence Glosten).

Professional Activities

Associate Editor

Journal of Finance, 1990-2000
Journal of Financial and Quantitative Analysis, 1991-99
Review of Financial Studies, 1990-93

Advisory Editor

Journal of Financial Markets, 1997-2003

Editorial Board

Financial Analysts Journal, 1995-99

Ad Hoc Referee

American Economic Review
Econometrica
Financial Review
Financial Management
Journal of Banking and Finance
Journal of Business
Journal of Business and Economics Statistics
Journal of Finance
Journal of Financial and Quantitative Analysis
Journal of Financial Economics
Journal of Financial Intermediation
Journal of Financial Research
Journal of Futures
Journal of Futures Markets
Journal of Law and Economics
Journal of Portfolio Management
National Science Foundation
Quarterly Journal of Business and Economics
Review of Financial Studies

Co-Organizer and program co-coordinator, USC/UCLA/NYSE Conference on Market Microstructure, March 30-31, 1994.

Organizer and program coordinator, USC/UCLA/NYSE Conference on Market Microstructure, March 26-27, 1992.

Program coordinator, Institute for Quantitative Research in Finance 1991 Spring Seminar, “Market Microstructure,” March 24-27, 1991.

Program coordinator, Institute for Quantitative Research in Finance 1990 Fall Seminar, “Quantitative Dimensions of Volatility,” October 14-17, 1991.

USC coordinator of the joint USC-UCLA Finance Workshop, 1985-88.

Organizer of the USC Finance Research Seminar series, 1984-88.

Co-organizer of the USC School of Business Administration, Conference on Issues in Transactions Data and Price/Volume Relationships, April 26-27, 1984.

Conference Discussions, Session Chairmanships, Program Committees

American Finance Association Meetings
Discussions, 2005, 1998, 1994, 1993, 1990 (2 papers), 1989 (2), 1988, 1987 (2), 1986.
Program Committee and Session Chair, 2003, 1996, 1993.
Econometrica Society Meetings, Discussions, 1998, 1989, 1986.
Western Finance Association Meetings
Program Committee, 2006, 1997-2004, 1993-95, 1987-91.
Discussions, 2003, 2002, 1999, 1998, 1996, 1995, 1990-93, 1987 (2 papers), 1986, 1984.
Session Chair, 1999-2001, 1995, 1991, 1985.

ReFlow Symposium, Panelist, "The Costs of Liquidity for Mutual Funds", Squaw Valley, CA, February 16, 2007.

Directors' Roundtable, Moderator-Panelist, "How to Get Board of Directors Investigations Right," Santa Monica, CA February 8, 2007.

American Finance Association, "The Economics of Regulating Financial Markets: Perspectives from Former SEC Chief Economists," two hour panel discussion, January 6, 2006.

12th Conference on the Theories and Practices of Securities Markets, Kaohsiung, Taiwan, December 17, 2004, discussed paper and chaired session.

Hong Kong University of Science and Technology Finance Symposium, Hong Kong, December 13, 2004, discussed paper and chaired session.

Financial Economics and Accounting Conference, discussed paper, Los Angeles, November 19, 2004.

American Enterprise Institute, Conference on "Market Shock and Trading Efficiency," Discussed paper, Washington, DC, June 10, 2004.

Securities Industry Association 5th Annual Conference on Market Structure, New York, Panel Discussion on "Views to the New Era," New York, May 21, 2004.

University of Chicago Graduate School of Business, Panel discussion on "How to Fight Corporate Fraud," 52nd Annual Management Conference, Chicago, May 14, 2004.

New York Stock Exchange Conference on Global Trading, Sarasota, Florida, Session Chair, March 12, 2004.

Bank for International Settlements/Federal Reserve Bank of Chicago Conference on Market Discipline, Chicago, Panel Discussion on Policy, November 1, 2003.

Securities Industry Association 4th Annual Conference on Market Structure, New York, Panel Discussion on Market Structure, June 13, 2003.

Society for Financial Studies Conference on Investments in Imperfect Capital Markets, Northwestern University, Discussion, May 20, 2002.

London School of Economics Financial Markets Group Conference, "Competition among Exchanges", London, Discussion, May 18, 2000.

Plexus Group Client Conference, Ojai, California, Session Chair, May 2, 2000.

National Bureau of Economic Research, Market Microstructure Section Conference, Discussion, Boston, December 4, 1997.

JFI Symposium on Asset Liquidity: The Role of Institutions and the Microstructure of Markets, Discussion, St. Louis, June 8, 1997.

Indiana University Summer Finance Symposium, Program Committee, 1997, 1995, 1993.

USC CIBEAR Seminar on Japanese Financial Markets, Session Chairman, June 1994.

Pace University Conference on What Institutions Expect from Brokers and Markets at the Dawn of the Twenty-first Century, Discussion, New York, April 13, 1994.

Memphis State University Conference on Competition for Order Flow, Program Committee, March 24-25, 1994.

National Bureau of Economic Research Conference on the Industrial Organization of Security Markets, Discussion, Key Largo, January 20-22, 1994.

Duke University Conference on Global Competition in the Market for Markets, Panel discussion, November 3, 1993.

New York University Salomon Center Conference on Global Equity Markets, Session Chair, October 22, 1993.

Federal Reserve Bank of St. Louis Economic Policy Conference, “The Stock Market: Programmed Chaos?,” Discussion, October 22, 1988.

USC Empirical Results in Asset Pricing Theory Conference, Discussion, November 1985.

USC Deficit Conference, Discussion, Spring 1983.

USC Event Study Conference, Discussion, Spring 1983.

Other Notable Presentations and Participations

American Stock Exchange Board of Governors Meeting Presentation, “Amex Internationalization Strategies,” New York, November 29, 2006.

Financial News Institutional Trading Forum, 2006 Conference on The Quest for Liquidity, Keynote Speaker, “The Economics of Reg NMS,” Santa Monica, CA, November 15, 2006.

McMaster DeGroote School of Business Conference on Market Structure and Market Integrity, Keynote Speaker, “The Economics of Reg NMS,” Toronto, November 13, 2006.

Securities and Exchange Commission Roundtable on the Regulation SHO Pilot, Panelist, Washington DC, September 15, 2006.

Occidental Petroleum Board of Directors, Executive Education Program, “Why People Trade,” Los Angeles, July 20, 2006.

Mutual Fund Director’s Forum “Lifting the Veil - Investment Industry Trading Practices and Best Execution Workshop,” participated in hour panel on economics of best execution, Chicago, June 7, 2006.

ReFlow Symposium, Keynote dinner speaker, presented one-hour speech on how buy-side traders lose, Squaw Valley, CA, February 7, 2006.

Boundaries of SEC Regulation Conference, Keynote dinner speaker, presented 45-minute speech on the political economy of the SEC, Claremont College, February 3, 2006.

Mutual Fund Director’s Forum “Lifting the Veil - Investment Industry Trading Practices and Best Execution Workshop,” participated in hour panel on economics of best execution, New York, November 2005.

USC Alumni Association, USC on the Road, Keynote breakfast speech, “Why People Trade (and Perhaps Why They Shouldn't)”, Chicago, October 14, 2005.

Deutsche Bank Prize in Financial Economics Symposium “Market Efficiency Today,” delivered 45 minute talk on “Liquidity Efficiency” to conference in honor Gene Fama, Frankfort, October 6, 2005.

USC Marshall Alumni Association Orange County Breakfast, Keynote speech, “Why People Trade (and Perhaps Why They Shouldn't)”, Irvine, September 21, 2005.

Institutional Investor TraderForum 2005 Winter Workshop, presented one-hour speech on the Economics of Reg NMS, New York, January 20, 2005.

USC Marshall School of Business Ethics Seminar Series, presented seminar, “Ethics in Business and Politics: Perspectives Gleaned from Serving at the SEC,” Los Angeles, November 12, 2004.

Chicago Quantitative Alliance Fall 2004 Meeting, Delivered one-hour talk, “The Economics of Reg NMS,” to 250 members, Chicago, September 22, 2004.

Boston College, 2nd Annual Finance Advisory Board Conference, Delivered talk, “What Disclosures Can Prevent Future Mutual Fund Crises?,” Boston, June 11, 2004.

University of Delaware, Weinberg Center for Corporate Governance, Two hour panel discussion on Enron and Corporate Governance Reform, April 29, 2004. Copanelists included William Crist, former chairman, CALPERS; Jack Jacobs, Justice, Delaware Supreme Court; Bob May, Interim CEO, HealthSouth; Carl McCall, former comptroller, State of New York; and Shaun O’Malley, former

former chairman, Freddie Mac.

USC Marshall Center for Investment Studies, inaugural speaker, Distinguished Speaker Series, "The Future of the Mutual Fund Industry," April 12, 2004.

Oxford University Press Academic Seminar at the Allied Social Sciences Associations Conference, "Competition among Exchange Service Providers," San Diego, January 4, 2004.

National Bureau of Economic Research, Market Microstructure Section Conference, Keynote lunch speech, "Simplicity and Discrimination," Palm Beach, FL, December 4, 2003.

National Research Council, Computer Science and Telecommunications Board, Exploratory Meeting on Information Technology and Competition, participated in a day-long panel discussion of where potential and future problems may lie with respect to antitrust and intellectual property law and enforcement, Washington DC. November 7, 2003.

International Securities Exchange, Keynote dinner speaker, "A Tale of Two Competitions, Chicago, October 1, 2003.

Plexus Group Client Conference, Keynote speaker, presented an hour speech, "Market Microstructure from the Other Side," Napa, CA, September 22, 2003.

The Strategic Research Institute, Art of Indexing Conference, featured speaker, presented a 45-minute speech, "Rebalancing Index List Changes," Arlington, VA, September 16, 2003.

US Military Academy, Faculty of Social Sciences, presented an hour seminar to the social sciences faculty on current issues in financial market regulation and led three cadet classes, West Point, NY, September 8, 2003.

Darden Batten Institute Conference on "Investing in Emerging Markets: Governance, Ownership, and Organization," presented three-quarter hour session "The Distribution of Investment Returns in Emerging Markets," Charlottesville, Virginia, May 30, 2003.

SEC Hedge Fund Roundtable, participated in panel discussion, "The Market Impact of Hedge Funds," Washington DC, May 15, 2003.

New York Stock Exchange Conference, "Institutional Equity Trading: What is Next? & What Is Needed?," panel discussion, Cold Spring Hills, New York, May 9, 2003.

Baruch College Conference, "Coping With Institutional Order Flow," panel discussion, "Overcoming Resistance to Change," New York, April 29, 2003.

USC Lusk100 Annual Retreat, "Macroeconomic Implications of Securities Market Scandals," panel discussion, Santa Barbara, April 15, 2003.

Vanderbilt Conference on Corporate Behavior and Financial Markets, "Challenging Problems in Securities Market Structure," panel discussion, Nashville, April 11, 2003.

American Bar Association, Section of Antitrust Law, 51st Annual Spring Meeting, Financial Markets Committee, co-presented a 1½ hour session on "Antitrust Issues in Financial Market Regulation" with Commissioner Cynthia Glassman, Washington DC, April 4, 2003.

Association for Investment Management and Research Conference "Equity Trading: The Next Revolution," presented one-hour session, "Market Microstructure and the Regulation of Markets," Chicago, March 25, 2003.

NYSE-Stanford Joint Conference on Entrepreneurial Finance and Initial Public Offerings, Keynote dinner speaker, “Short-Selling restrictions,” Half Moon Bay, CA, March 7, 2003.

National Economists Club, lunch speaker, “Access Fees and Exchange Competition,” Washington, DC, January 23, 2003.

Washington Area Finance Association, Keynote lunch speaker, Catholic University, Washington, DC, November 22, 2002.

Maryland Financial Economics and Accounting Conference, pre-dinner speech, “Things That Shouldn’t Matter,” College Park, MD, November 15, 2002.

SEC Credit Rating Agency Hearings, Washington DC, November 15, 2002, moderated 1½ hour session on Credit Rating Agencies.

SEC Market Structure Hearings, Washington DC, October 29, 2002, and New York, November 12, 2002, moderated 1½ hour sessions on market structure.

Financial Management Association 2002 Finance Doctoral Seminar. Five senior academic colleagues and I spoke to 60 Ph.D. students from various universities about current research topics in Finance in our respective areas of specialization. We then critiqued dissertation proposals in our respective areas. San Antonio, October 16, 2002.

Securities Industry Association Conference on Market Structure, New York, Keynote lunch speaker. “Regulatory Challenges,” June 7, 2002.

10th Conference on the Theories and Practices of Securities Markets, Kaohsiung, Taiwan, December 15-16, 2001. Keynote speaker. Presented “The Tension Between Consolidation and Fragmentation.”

10th Conference on the Theories and Practices of Securities Markets, Kaohsiung, Taiwan, December 15-16, 2001. Presented 2-hour tutorial on “Measuring Liquidity.”

NYSE Conference on *Practices and Concerns of Institutional Buy-Side Equities Desks.* Chaired panel on spreads and liquidity in the era of decimals, Palm Beach, Florida, December 7, 2001.

NYSE Conference on *Institutional Trading*. Chaired panel discussion on decimalization, Hawaii, February 16, 2001.

SEC Decimalization Roundtable, Washington DC, December 11 2000. Participated in a second half-day discussion with senior executives from exchanges and SEC on the expected effects of trading on pennies.

SEC Decimalization Roundtable, Washington DC, December 15, 1999. Participated in half-day discussion with senior executives from exchanges and SEC on the expected effects of trading on pennies.

NASD Academic Advisory Panel, Member, 1999-2001.

Security Traders Association Foundation Conference on *Critical Issues in Our Marketplaces*. Panel discussion on decimalization, Chicago, July 22, 1997.

Institutional Investor TraderForum Spring 1997 Conference. Panel discussion on decimalization, San Diego, May 17, 1997.

NYSE Conference on *Global Equity Issuance and Trading*. Panel discussion on decimalization, Cancun, May 9, 1997.

US Congress, House Committee on Commerce, Subcommittee on Finance and Hazardous Materials, Hearings on H.R. 1053: The Common Cents Stock Pricing Act of 1997. Testified on decimalization, Washington, DC, April 16, 1997.

Center for the Strategic & International Studies, Global Financial Policy Forum, Markets in the 21st Century." Participated in day-long round-table discussion with senior executives from financial exchanges, broker-dealers, regulators, and Congress, Washington DC, April 15, 1997.

Financial Management Association 1996 Finance Doctoral Seminar. Five senior academic colleagues and I spoke to 60 Ph.D. students from various universities about current research topics in Finance in our respective areas of specialization. We then critiqued dissertation proposals in our respective areas. New Orleans, October 9, 1996.

Association for Investment Management and Research Committee on Research and Education, Member, 1993-2001.

German Research Foundation Symposium on the Design of Financial Markets. Presented Keynote speech "Seemingly Trivial, Clearly Important: The Importance of the Minimum Price Variation" to conference of 60 German academics, Nuremberg, September 29, 1995.

Conference on Neural Networks in the Capital Markets. Presented introductory tutorial titled "Dynamics of Trading and Market Microstructure," to 180 participants, November 16, 1994.

Ontario Securities Commission, Conference on Proprietary Trading Systems. Delivered the after lunch address to 300 participants, June 29, 1994.

Shadow SEC, second meeting. Spoke on the Treasury bill auction mechanism, Washington, DC, November 1, 1991

Financial Management Association 1991 Finance Doctoral Seminar. Led session on Market Microstructure and critiqued dissertation proposals. Chicago, October 9, 1991.

Member, Academic Advisory Board to the Pacific Stock Exchange, Fall 1991 – Spring 1993.

Shadow SEC, first meeting. Spoke on program trading and on new cash index alternatives. Washington, DC, November 8, 1990.

Investment Management Institute Conference on Profitable Strategies for Trading. Spoke on basket and program trading. New York, February 7, 1990.

LSE Financial Markets Group and New York Stock Exchange, Inc. Academic Seminar. A meeting of senior British economists, regulators and exchange officials to discuss issues in market structure. London, November 14-15, 1989.

Law and Economics Conference, George Mason University Law School. A two week survey of law for economics professors. Hanover, New Hampshire, June 25 -- July 8, 1989.

Rodney L. White Seminar, "Trading Baskets of Securities." Provided the conference summary, discussed various cash index alternatives. The Wharton School, Philadelphia, May 1, 1989.

New York Stock Exchange Academic Conference. A meeting of senior economists and exchange officials to discuss research issues of mutual interest. New York, May 5, 1989.

New York Stock Exchange 1989 Off-Site Environmental Scan. "Prospects for the U.S. Securities Industry." An after lunch speech to the top 35 officers and managers of the NYSE. New York, January 12, 1989.

Standard and Poors Corporation. "Addition Procedures for the S&P 500 List." A policy alternatives presentation to top officers and managers; recommendations subsequently adopted. New York, December 12, 1988.

Curry Foundation congressional briefing. Presentation of the theses of the Curry Foundation Public Policy Project on Vulnerabilities in the U.S. Economy to several congressmen and their staff. Washington, DC, September 23, 1988.

American Stock Exchange. "The Economics of Cash Index Alternatives." An over lunch presentation to top officers and managers. New York, July 20, 1988.

New York Stock Exchange Academic Round Table Seminar. A one-day round table discussion among 12 invited economists and senior officers and managers of the NYSE about the October 1987 Crash. New York, December 11, 1987.

Course Preparations

Trading and Exchanges (Market Microstructure) for MBA and undergraduate students
Seminar in Research Methods in Finance for Ph.D students
Business Economics for MBA students
Financial Management for MBA students
Intermediate Business Economics for undergraduate students
Intermediate Finance for undergraduate students
Introduction to Finance for undergraduate students

Ph.D. Student Dissertation Chairmanships

Jia Ye, "Market Fragmentation and Crossing Markets," USC, May 1995.
Venkatesh Panchapagesan, "Time Precedence Rules," USC, Fall, 1999.

Notable Teaching Contracts

University of Western Australia School of Commerce, Perth, 15 hour course in market microstructure for honors students, February 18 -- March 18, 1994.

Berkeley Program in Finance, 5 hour conference instructional session on liquidity for practitioners, Squaw Valley, March 14, 1993.

Swedish School of Economics and Business Administration, Helsinki, 15 hour course in market microstructure for Ph.D. students, October 29, 1992 -- November 5, 1992.

Notable Consulting Relationships

American Stock Exchange	business consulting
AtomicTangerine	Nasdaq decimalization litigation
Bear Stearns	business consulting
Bridge Information Systems, Inc.	educational program
Cantor Fitzgerald	litigation support
Charles River Associates	litigation support
Cornerstone Research	litigation support
Davidge Data Systems	business consulting
Driehaus Securities	business consulting
Fidelity National Financial Markets	litigation consulting
FT Interactive Data Corporation	business consulting
Gibson, Dunn & Crutcher	litigation support
Gordon, Arata, McCollam & Duplantis	litigation support
Hull Trading Co.	business consulting
ITG, Inc.	educational program
Jefferies Group, Inc .	educational program
Kirkland & Ellis	litigation support
Lehman Brothers	educational program
Mackall, Crounse & Moore	litigation support
Morgan, Lewis & Bockius	litigation support
Morrison & Foerster	litigation support
N/E/R/A	litigation support
New York Stock Exchange, Inc.	business consulting
Plexus Group	business consulting
Prudential Securities	business consulting
Securities and Exchange Commission	litigation support
Shearman and Sterling	Nasdaq odd-eighths litigation support
SRI Consulting	SIA Decimalization Study

Significant University Service

Member, Strategic Planning Committee, Marshall School of Business, 2004-5.
Chairman, Marshall School of Business Personnel Committee, 1997-99.
Member, Dean's Faculty Advisory Committee, Marshall School of Business, 1997-99.
Member, Task force on Faculty Quality of Life, Marshall School of Business, 1997-98.
Member, Marshall School of Business Personnel Committee, 1996-99.
Chairman, Advisory Committee on Information Resources, Marshall School of Business, 1997.
Member, University Committee on Appointments, Tenure and Promotions, 1994-96.

Student Fellowships and Honors

Cargill Foundation Dissertation Fellowship
University of Chicago Graduate Fellowship
Phi Beta Kappa
University of California Alumni Award
Beta Gamma Sigma

Research Presentations

"Corporate Bond Market Transparency and Transaction Costs"

Western Finance Association Meetings, Portland, OR, June 19, 2005.
Vanderbilt Financial Markets Research Center Conference, Nashville, May 19, 2005.
Barclays Global Investors Research Seminar, San Francisco, December 9, 2004.
Bank of Canada Fixed Income Workshop, Montreal, November 26, 2004.
Arizona State University Finance Seminar, October 29, 2004.
Emory University Finance Seminar, October 22, 2004.
The Institute for Quantitative Analysis in Finance Research Seminar, La Quinta, CA, October 20, 2004.

"Secondary Trading Costs in Municipal Bond Market"

American Finance Association Meetings, Philadelphia, January 9, 2005.
12th Conference on the Theories and Practices of Securities Markets, Kaohsiung, Taiwan, December 17, 2004. Won the Fuh Hwa Bond Research Award for the best fixed income paper presented at the conference.
University of Southern California Finance Research Seminar, August 27, 2004.
University of Maryland, College Park, April 27, 2004.
Vanderbilt Financial Markets Research Center Conference on Exchange Governance and Securities Market Structure, Nashville, April 23, 2004.
Bank of Canada Workshop on Regulation, Transparency and the Quality of Fixed Income Markets, Ottawa, Ontario, February 11, 2004.
Securities and Exchange Commission, January 14, 2004.

"Specialist Profits and the Minimum Price Increment"

Hong Kong University of Science and Technology Finance Symposium, Hong Kong, December 13, 2004.

Vanderbilt Financial Markets Research Center Conference on Exchange Governance and Securities Market Structure, Nashville, April 23, 2004.
University of Southern California Finance Research Seminar, January 8, 2004.
Securities and Exchange Commission, September 17, 2003.
New York Stock Exchange, September 15, 2003.
New York University Finance Seminar, September 3, 2003.

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Research Presentations

"Why People Trade?"

CRA International, Dinner Seminar, San Francisco, March 1, 2007.
Charles River Associates, Dinner Seminar, Los Angeles, April 21, 2005.
Milken Institute Forum, Santa Monica, February 17, 2005.
Mellon Capital Management Advisory Forum, Pebble Beach, September 12, 2003.
Association for Investment Management and Research, 2003 Financial Analysts Seminar, Evanston, IL, August 7, 2003.
Canadian Securities Traders Association, Toronto, June 28, 2003.
Commodity Futures Trading Commission, Washington D.C., April 7, 2003.
The Institute for Quantitative Analysis in Finance Research Seminar, San Diego, October 8, 2002. (Won First Prize, Roger F. Murray Prize Competition.)
Los Angeles Quantitative Investment Association, Los Angeles, March 23, 2001.

"Floor versus Automated Trading Systems: A Survey of the Issues"

London School of Economics Financial Markets Group Conference, "Competition among Exchanges, London, May 18, 2000.

"The Information-Content of the Limit Order Book: Evidence from NYSE Specialist Actions" (with Venkatesh Panchapagesan)

American Finance Association Meetings, Boston, January 5, 2000.
NYSE-JB Seminar Series, 1999
Notre Dame - NASDAQ Conference, 1999.
NBER Market Microstructure Conference, 1999.
European Finance Association meetings in Helsinki, 1999.

"Trading in Pennies: A Survey of the Issues"

London School of Economics Financial Markets Group Seminar, May 17, 2000.
UCLA Finance Conference, "Liquidity," Los Angeles, California, April 28, 2000.
NYSE Conference "U.S. Equity Markets in Transition," Scottsdale, Arizona, December 10, 1999

"Order Exposure and Parasitic Traders"

Deutsche Börse AG Symposium "Equity Market Structure for Large- and Mid-Cap Stocks," Frankfurt, December 12, 1997.

"Circuit Breakers and Program Trading Limits: What Have We Learned?"

Brookings-Wharton Conference on Financial Services, Washington, DC, October 30, 1997.
UC Davis Conference, "The October '87 Stock Crash Ten Years Later: Perspectives on the Causes and Consequences of Stock Market Volatility," Sacramento, October 18, 1997.

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Research Presentations

"Decimalization: A Review of the Arguments and Evidence"

The Institute for Quantitative Analysis in Finance Research Seminar, Scottsdale, Arizona, October 8, 1997.
Los Angeles Society of Financial Analysts, June 17, 1997.

"Does a Large Minimum Price Variation Encourage Order Display?"

University of Texas at Austin Finance Seminar, September 26, 1997.
Chicago Quantitative Alliance Fall Seminar, September 17, 1997.
University of Arizona Finance Seminar, September 12, 1997.
Indiana University Summer Finance Symposium, August 23, 1997.
Inquire-UK/Inquire-Europe/Q Group joint summer meetings, London, June 30, 1997.
Western Finance Association Meetings, June 19, 1997.
Los Angeles Society of Financial Analysts, June 17, 1997.
JFI Symposium on Asset Liquidity: The Role of Institutions and the Microstructure of Markets, St. Louis, June 6, 1997.
UCLA Finance Seminar, April 11, 1997.
New York University Finance Seminar, March 7, 1997.
Paris Bourse Conference, "Organization and Quality of Equity Markets," Paris, December 19, 1996.
Tel-Aviv University Finance Seminar, November 18, 1996.

"The Economics of Best Execution"

New York Stock Exchange Conference on the Search for the Best Price, March 9, 1996.

"Optimal Dynamic Order Submission Strategies In Some Stylized Trading Problems"

University of California at Berkeley Finance Seminar, September 14, 1995.
University of California at Riverside Finance Seminar, May 26, 1995.
American Finance Association Meetings, Washington, DC, January 7, 1995
University of Utah Finance Seminar, November 29, 1994.
University of Iowa Finance Seminar, November 11, 1994.
Washington University Finance Seminar, April 15, 1994.
USC/UCLA/NYSE Conference on Market Microstructure, March 30, 1994.
Plexus Group Client Conference, San Diego, March 29, 1994.
Hong Kong University of Science and Technology Finance Seminar, January 28, 1994.
University of Southern California Finance Research Seminar, November 23, 1993.
University of Arizona Finance Seminar, November 22, 1993.

"The Winners and Losers of the Zero Sum Game: The Origins of Trading Profits, Price Efficiency and Market Liquidity"

Plexus Group Client Conference, Santa Monica, October 11, 1995.
Hong Kong University of Science and Technology Finance Seminar, February 7, 1994.
The Institute for Quantitative Analysis in Finance Research Seminar, Tampa, Florida, March 29, 1993.

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Research Presentations

"The ARMoD Alternative to ARCH-class Volatility Models"

University of Southern California Finance Research Seminar, March 9, 1993.
Amsterdam Institute of Finance Volatility Conference, November 20, 1992.

"Consolidation, Fragmentation, Segmentation and Regulation"

Milken Institute for Job & Capital Formation, December 5, 1994.
UCLA Industrial Organization Seminar, May 20, 1994.
University of Western Australia, March 11, 1994.
Berkele y Program in Finance, Squaw Valley, March 16, 1993.
Association for Investment Management and Research Conference, "Execution Techniques, True Trading Costs and the Micro Structure of Markets," Toronto, December 3, 1992.
London Business School, November 13, 1992.
London School of Economics, November 11, 1992.
Stockholm School of Economics, November 6, 1992.
Bank of Finland, Helsinki, November 3, 1992.
Plexus Group Client Conference, Los Angeles, October 1, 1992.
Securities and Exchange Commission, Washington, DC, June 9, 1992.
National Organization of Investment Professionals, New York, December 10, 1991.

"Minimum Price Variations, Discrete Bid/Ask Spreads and Quotation Sizes"

University of Indiana Symposium on the Design of Securities and Markets, August 15, 1993.
UC Irvine Finance Seminar, May 13, 1993.
London Business School, November 12, 1992.
London School of Economics, November 11, 1992.
Bank of Finland, Helsinki, November 4, 1992.
INSEAD, Fontainebleau, France, October 28, 1992.
HEC, Jouy-En-Josas, France, October 22, 1992.
Western Finance Association Meetings, June 23, 1992.
Commodity Futures Trading Commission, Symposium on Screen-Based Trading Systems, Washington D.C., June 8, 1992.
University of Southern California, Economics Department Econometrics Seminar, April 21, 1992.
University of Southern California Finance Research Seminar, November 19, 1991.
University of Illinois Finance Seminar, October 8, 1991.

"Market Microstructure and Transitory Volatility"

Amsterdam Institute of Finance Volatility Conference, November 19, 1992.

"Market versus Limit Orders: The SuperDOT Evidence on Order Submission Strategy"

Berkeley Program in Finance, Squaw Valley, March 15, 1993.
Inquire EUROPE Conference, Paris, October 27, 1992.
USC/UCLA/NYSE Academic Seminar on Market Micro-Structure, Los Angels, March 26, 1992.

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Research Presentations

"Liquidity, Trading Rules and Electronic Trading Systems."

Los Angeles Society of Financial Analysts, May 21, 1991.
Vanderbilt Conference on Securities Trading and Transactions Costs, Nashville, April 12, 1991.
The Institute for Quantitative Analysis in Finance Research Seminar, Ponte Vedra, Florida, March 25, 1991.
The Wharton Conference on Investment Management, Philadelphia, March 15, 1991.
Dartmouth University Tuck School of Business Finance Seminar, November 6, 1990.
University of Arizona Finance Seminar, October 17, 1990.
University of Southern California Finance Research Seminar, October 9, 1990.
New York Stock Exchange, August 23, 1990.
Securities and Exchange Commission, August 16, 1990.

"Program Trading and Intraday Volatility" (written with George Sofianos and Jim Shapiro).

The Institute for Quantitative Analysis in Finance Research Seminar, Tucson, Arizona, October 16, 1990.

Seminar on the Analysis of Security Prices, Center for Research in Security Prices, University of Chicago, May 4, 1990 (George Sofianos presenting).
Vanderbilt University Owen School of Management Finance Center Seminar on Market Volatility, April 1990, (George Sofianos presenting).
Conference on Holding and Trading Stock Index Risk: Market Innovations, Volatility and Public Policy, Center for the Study of Futures and Options Markets, Virginia Polytechnic Institute and State University, Washington DC, February 15, 1990.

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Research Presentations

"Stock Price Clustering, Discreteness and Bid/Ask Spreads"

Seminar on the Analysis of Security Prices, Center for Research in Security Prices, University of Chicago, November 8, 1990.
Massachusetts Institute of Technology Sloan School of Business Finance Seminar, November 7, 1990.
Los Angeles Society of Financial Analysts, September 18, 1990.
New York University Finance Seminar, July 18, 1990.
Western Finance Association Meetings, June 18, 1990.
University of Rochester Finance Seminar, May 24, 1990.
University of Iowa, Center for the Study of Capital Markets, Conference on Market Micro-Structure, Iowa City, May 17, 1990.
Tel-Aviv University Finance Seminar, May 8, 1990.
Haifa University Finance Seminar, May 3, 1990.
Hebrew University Finance Seminar, May 2, 1990.
USC/UCLA/NYSE Academic Seminar on Market Micro-Structure, Los Angels, April 19, 1990.
Columbia Finance Seminar, April 11, 1990.
Yale Finance Seminar, April 10, 1990.
UC Berkeley Finance Seminar, April 5, 1990.
Stanford University Finance Workshop, April 4, 1990.
University of Washington, February 9, 1990.
Securities and Exchange Commission, Washington D.C., February 2, 1990.
University of Minnesota Finance Seminar, January 30, 1990.
University of Pennsylvania Wharton School, January 11, 1990.
Rutgers University, Newark, Finance Seminar, November 21, 1989.

"The Economics of Cash Index Alternatives"

Conference on Holding and Trading Stock Index Risk: Market Innovations, Volatility and Public Policy, Center for the Study of Futures and Options Markets, Virginia Polytechnic Institute and State University, Washington DC, February 15, 1990.
New York Federal Reserve Bank Finance Seminar, January 5, 1990.
Seminar on the Analysis of Security Prices, Center for Research in Security Prices, University of Chicago, May 4, 1989.
AMEX Options Colloquium IX, New York, March 31, 1989.
National Bureau of Economic Research Conference on Stock Market Volatility, Puerto Rico, March 18, 1989.
Georgetown University Finance Seminar, February 24, 1989.
Securities and Exchange Commission, Washington D.C., July 21, 1988.

"The Dangers of Regulatory Overreaction to the October 1987 Crash"

University of Georgia Finance Seminar, December 2, 1988.
Cornell University Law Review Symposium, "The Regulation of Secondary Trading Markets: Program Trading, Volatility, Portfolio Insurance, and the Role of Specialists and Market Makers," November 12, 1988.

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Research Presentations

"The October 1987 S&P 500 Stock-Futures Basis," formerly titled "Nonsynchronous Trading and the S&P 500 Stock-Futures Basis in October 1987"

University of Texas at Austin Finance Seminar, November 11, 1988.
Princeton University Finance Seminar, October 28, 1988.
Arizona State University Finance Seminar, September 9, 1988.
Western Finance Association Meetings, June 1988.
University of Southern California Finance Research Seminar, May 10, 1988.
University of Arizona Finance Seminar, April 15, 1988.
AMEX Options Colloquium VIII, New York, March 24, 1988.
The Crash: Causes and Cures?, A Joint UCLA-USC Conference, February 13, 1988.
New York University Finance Seminar, January 6, 1988.
Duke University Finance Seminar, January 5, 1988.
Securities and Exchange Commission, Washington D.C., January 4, 1988.
Commodity Futures Trading Commission, Washington D.C., December 31, 1987.

"S&P 500 Futures and Cash Stock Price Volatility"

American Finance Association National Meetings, December 30, 1988.
Securities and Exchange Commission, Washington D.C., October November 3, 1988.
Southern Methodist University Finance Seminar, November 13, 1987.
University of Iowa Finance Seminar, November 6, 1987.
The Institute for Quantitative Analysis in Finance Research Seminar, Colorado Springs, Colorado, October 19, 1987.
University of Southern California Finance Research Seminar, October 6, 1987.

"A Day-end Transaction Price Anomaly"

Western Finance Association Meetings, June 1987.
University of Southern California Finance Research Seminar, July 15, 1986.

"Estimating the Components of the Bid/Ask Spread" (written with Lawrence Glosten).

UCLA Finance Seminar, October 2, 1987.
Columbia Finance Seminar, September 17, 1987.
Carnegie-Mellon Finance Seminar, September 16, 1987.
UC Berkeley Finance Seminar, October 1, 1986.
University of Southern California Finance Research Seminar, September 9, 1986.
Western Finance Association Meetings, June 1986.
The Institute for Quantitative Analysis in Finance Research Seminar, Palm Beach Florida, April 30, 1986.

Seminar on the Analysis of Security Prices, Center for Research in Security Prices, University of Chicago, November 7, 1985.

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Research Presentations

"Estimation of Stock Price Variances and Serial Covariances from Discrete Observations."

Western Finance Association Meetings, June 1986.
University of Utah, Department of Finance, May 13, 1986.
University of Pennsylvania Wharton School, January 17, 1986.
Yale Finance Seminar, January 15, 1986.
UCLA Finance Workshop, December 6, 1985.
University of Southern California Department of Economics, Econometrics Seminar, November 26, 1985.

New York University School of Business, November 14, 1985.
Vanderbilt University Owen School of Management, November 12, 1985.
Northwestern Kellogg School of Management, November 4, 1985.
University of Michigan Graduate School of Business Administration, November 1, 1985.
Cornell University Johnson School of Management, October 30, 1985.
University of Southern California Finance Research Seminar, September 17, 1985.

"Theory and Transaction Data Evidence on Price-Volume Relations in Call Markets and in Continuous Markets"

University of Southern California Finance Research Seminar, March 22, 1984.

"Price and Volume Effects Associated with Change in the S&P 500 List: New Evidence for the Existence of Price Pressures" (written with Eitan Gurel).

Western Finance Association Meetings, June 20, 1985.
Berkeley Symposium on Trading Costs and Trading Strategies, March 1985, (Eitan Gurel presenting).
University of Southern California Finance Research Seminar, January 22, 1985.

"Cross-security Tests of the Mixture of Distributions Hypothesis"

University of Southern California Finance Research Seminar, October 23, 1984.

"A Transactions Data Study of Weekly and Intradaily Patterns in Stock Prices"

Seminar on the Analysis of Security Prices, Center for Research in Security Prices, University of Chicago, November 1984.
Stanford University Finance Workshop, October 17, 1984.
UCLA Finance Workshop, May 18, 1984.
Conference on Issues in Transactions Data and Price/Volume Relationships, USC School of Business, April 26, 1984.
University of Southern California Finance Research Seminar, March 22, 1984.
UC Berkeley Finance Seminar, March 20, 1984.

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Research Presentations

"Transactions Data Tests of the Mixture of Distributions Hypothesis"

American Finance Association National Meetings, December 30, 1984.
Western Finance Association Meetings, June 1984.
University of Southern California Finance Research Seminar, August 1983.

"The Joint Distribution of Speculative Prices and of Daily Trading Volume"

Western Finance Association Meetings, June 1983.
UC Santa Barbara Department of Economics, December 8, 1982.
University of Southern California Finance Research Seminar, October 10, 1982.
UC Berkeley Graduate School of Business, February 1982.
University of Southern California School of Business Administration, February 1982.
University of Michigan Department of Economics, February 1982.
Federal Reserve Board, Washington, January 1982.
Columbia School of Business, January 1982.
Carnegie-Mellon Graduate School of Industrial Administration, January 1982.
University of Chicago Graduate School of Business, November 1981.

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Biographic Sketch

Lawrence Eugene Harris

Larry Harris holds the Fred V. Keenan Chair in Finance at the USC Marshall School of Business. His research, teaching, and consulting address regulatory and practitioner issues in trading and in investment management. He has written extensively about trading rules, transaction costs, index markets, and market regulation. His introduction to the economics of trading, *Trading and Exchanges: Market Microstructure for Practitioners* (Oxford University Press: 2003), is widely regarded as a "must read" for entrants into the securities industry.

Chairman Harvey Pitt appointed Dr. Harris to serve as Chief Economist of the U.S. Securities and Exchange Commission in July 2002 where he continued to serve under Chairman William Donaldson through June 2004. As Chief Economist, Harris was the primary advisor to the Commission on all economic issues. He contributed extensively to the development of regulations implementing Sarbanes-Oxley, the resolution of the mutual fund timing crisis, the specification of Regulation NMS (National Market System), the promotion of bond price transparency, and numerous legal cases. Harris also directed the SEC Office of Economic Analysis in which 35 economists, analysts, and support staff engage in regulatory analysis, litigation support, and basic economic research.

Professor Harris currently serves as an independent director of Interactive Brokers, Inc. (IBKR) and of Clipper Fund, Inc. (CFIMX), as the director of the USC Marshall School Center for Investment Studies, and as the research coordinator of the Institute for Quantitative Research in Finance (the Q-Group). In the past, he has served as an associate editor of the *Journal of Finance*, the *Review of Financial Studies*, and the *Journal of Financial and Quantitative Analysis*. Other professional service has included year-long assignments to the U.S. Securities and Exchange Commission and to the New York Stock Exchange immediately following the Stock Market Crash of 1987. Dr. Harris has also worked at UNX, Inc., an electronic pure agency institutional equity broker, and at Madison Tyler, LLC, a broker-dealer engaged in electronic proprietary trading in various markets.

Dr. Harris received his Ph.D. in Economics from the University of Chicago in 1982.