HANS R. STOLL

The Anne Marie and Thomas B. Walker Jr. Professor of Finance

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PERSONAL

Born December 11, 1939, Regensburg Germany. Came to U.S. in 1947. Wife: Margie. Children: Erica, born January 1972; Andrew, born January 1974; Kevin, born August, 1976.

EDUCATION

Swarthmore College, A.B. Economics, 1961. University of Chicago, M.B.A., 1963; Ph.D., 1966.

POSITIONS

September 1980 - The Anne Marie and Thomas B. Walker Pr

Finance, Owen Graduate School of Management,

Vanderbilt University

June, 1987 - Director of the Financial Markets Research Center

July, 1990 Visiting scholar, University of British Columbia

June-July 1986 Visiting Professor, University of Karlsruhe, Germany

September 1982-1984 Director, Ph.D. Program in Management, Owen Graduate

School of Management, Vanderbilt University

July 1966 - July 1980 Assistant and Associate Professor of Finance, The

Wharton School, University of Pennsylvania

October 1976 - June 1977 On Leave: Senior Fulbright-Hays Act Visiting Lecturer at

Ecole Superieure des Sciences Economique et

Commerciales (ESSEC)

October 1975 - Sept. 1976 On Leave: Visiting Associate Professor of Finance,

Graduate School of Business, University of Chicago

July 1974 - June 1975 Associate Director, Wharton Doctoral Programs

March 1969 - September 1970 On Leave: Institutional Investor Study, Securities and

Exchange Commission

July 1968 - March 1969 On Leave: Visiting Professor, Board of Governors of the

Federal Reserve System

October 1965 - July 1966 Instructor in Business Economics, Graduate School of

Business, University of Chicago

TEACHING

Financial Markets, Derivatives Markets, International Finance, Investment Management, Corporate Finance.

HONORS AND AWARDS

Graham and Dodd Scroll, 1988, Financial Analysts Journal paper.

President, Western Finance Association, 1992 – 93.

Chicago Board of Trade Earle M. Combs, Jr. Award for leadership and contributions to the futures industry, October 15, 1994.

Earl Sutherland Prize for Achievement in Research, 1996. Awarded annually to an outstanding Vanderbilt researcher in all fields.

President, American Finance Association, 1999 – 2000.

Research impact award, Owen School, 2000.

Doctorate honoris causa, from Goethe University, Frankfurt, Germany, Feb. 2007.

PUBLICATIONS AND RESEARCH

Books:

<u>Taxes, Financial Policy and Small Business</u> (with T.E. Day and R.E. Whaley), Lexington, MA: D.C. Heath Lexington Books, 1985, 7 chapters.

International Finance and Financial Policy, editor, Westport, CT: Quorum Books, 1990.

<u>Futures and Options</u> (with Robert E. Whaley), Cincinnati, OH: South-Western Publishing Company, 1993.

Microstructure: The Organization of Trading and Short Term Price Behavior, Volumes I and II, editor, Northampton, MA: Edward Elgar, 1999. With an introduction.

Published Articles and Monographs:

"Exchange Rate Changes and Capital Flows," <u>American Economic Review</u> (September 1967) pp. 894-897.

"An Empirical Study of the Forward Exchange Market Under Fixed and Flexible Exchange Rate Systems," <u>Canadian Journal of Economics</u> 1 (February 1968) pp. 55-78.

"The Relationship Between Put and Call Option Prices," <u>Journal of Finance</u> 24 (December 1969) pp. 801-824. Reprinted in L. Hughston (ed), <u>Options: Classic Approaches to Pricing and Modeling</u>, Risk Books, 1999.

"Small Business and the New Issues Market for Equities," (with Anthony J. Curley), <u>Journal of</u> Financial and Quantitative Analysis (September 1970) pp. 309-322.

Member of senior staff authoring <u>Institutional Investor Study Report of the Securities and Exchange Commission</u>, 92nd Congress, 1st Session, March 10, 1971, 7 volumes.

"Causes of Deviations from Interest Rate Parity," <u>Journal of Money Credit and Banking</u> (February 1972) pp. 112-117.

"Price Impacts of Block Trading on the NYSE," (with Alan Kraus), <u>Journal of Finance</u> 27 (June 1972) pp. 569-588.

"Parallel Trading by Institutional Investors," (with Alan Kraus), <u>Journal of Financial and Quantitative Analysis</u> (December 1972) pp. 2107-2138.

"Reply" to "Comment" on "Relationship Between Put and Call Option Prices," <u>Journal of Finance</u> 28 (March 1973) pp. 185-187.

"Viability of Exchanges," a note in Symposium Volume: Regional Stock Exchanges in Central Market System, <u>Explorations in Economic Research</u> 2 (Summer 1975) pp. 421-424.

"The Pricing of Underwritten Offerings of Listed Common Stocks and the Compensation of Underwriters," <u>Journal of Economics and Business</u> 28 (Winter 1976) pp. 96-103.

"Tighter Investment Costs Ahead?" <u>The Financial Planner</u> 5 (May 1976). Talk given at the Annual Convention of the International Foundation of Employee Benefit Plans.

"Dealer Inventory Behavior: An Empirical Investigation of NASDAQ Stocks," <u>Journal of Financial and Quantitative Analysis</u> (September 1976) pp. 359-380.

"The Supply of Dealer Services in Securities Markets," <u>Journal of Finance</u> 33 (September 1978) pp. 1133-1151.

"The Pricing of Security Dealer Services: An Empirical Study of NASDAQ stocks," <u>Journal of Finance</u> 33 (September 1978) pp. 1153-1172.

"Regulation of Securities Markets: An Examination of the Effects of Increased Competition," monograph for U.S. Senate Committee on Governmental Affairs, <u>Study on Federal Regulation</u>. GPO, 1978.

"Commodity Futures and Spot Price Determination and Hedging in Capital Market Equilibrium," <u>Journal of Financial and Quantitative Analysis</u> 14 (November 1979) pp. 873-894.

"Regulation of Securities Markets: An Examination of the Effects of Increased Competition," Monograph Series in Finance and Economics, Monograph 1979-2, New York University, Graduate School of Business, 82 pages.

"On Dealer Markets Under Competition," (with Tom Ho), <u>Journal of Finance</u> 35 (June 1980) pp. 259-267.

"Tax Incentives for Small Business," (with James Walter), Heller Small Business Institute Policy Paper No. 1 (November 1980) 65 pages.

"Optimal Dealer Pricing Under Transactions and Return Uncertainty," (with Tom Ho), <u>Journal of</u> Financial Economics 9 (March 1981) pp. 47-73.

"Revolution in the Regulation of Securities Markets: An Examination of the Effects of Increased Competition," in L. Weiss and M. Klass (eds.) <u>Case Studies in Regulation: Revolution and Reform, Little, Brown and Company, 1981, pp. 12-52.</u>

"Comment" on Cohen, et al., "An Analysis of the Economic Justification for Consolidation in a Secondary Security Market," <u>Journal of Banking and Finance</u> 6 (1982) pp. 137-140.

"Transaction Costs and The Small Firm Effect," (with Robert E. Whaley), <u>Journal of Financial Economics</u> 12 (June 1983) pp. 57-79.

"The Dynamics of Dealer Markets Under Competition," (with Tom Ho), <u>Journal of Finance</u> 38 (September 1983) pp. 1053-1074.

"Spot and Futures Prices and the Law of One Price," (with Aris Protopapadakis), <u>Journal of Finance</u> 38 (December 1983) pp. 1431-1454.

"Small Firms' Access to Public Equity Financing," in <u>Studies of Small Business Finance</u>, a report to Congress prepared by the Interagency Task Force on Small Business Finance, February 1982. Also in Paul M. Horvitz and R. Richardson Pettit (eds.) <u>Small Business Finance</u>: <u>Problems in the Financing of Small Business</u>, JAI Press, 1984, pp. 187-238.

"Trading Markets," (with Thomas E. Copeland), in D. Logue (ed.) <u>Handbook of Modern Finance</u>, Warren, Gorham and Lamont, 1984, 40 pages.

"Alternative Views of Market-Making," in Amihud, Ho and Schwartz (eds.) <u>Market Making and the Changing Structure of the Securities Industry</u>, Lexington, MA: D.C. Heath Lexington Books, 1985, pp. 67-91.

"The New Options Markets," (with Robert E. Whaley), in Anne Peck (ed) <u>Futures Markets: Their Economic Role</u>, Washington, DC: American Enterprise Institute, 1985, pp. 205-289.

"The Stock Exchange Specialist System: An Economic Analysis," <u>Monograph Series in Finance and Economics</u>, Monograph 1985-2, 51 pages.

"The Law of One Price in International Commodity Markets: A Reformulation and Some Formal Tests," (with Aris Protopapadakis), <u>Journal of International Money and Finance</u> 5 (September 1986) pp. 335-360.

"New Option Instruments: Arbitrageable Linkages and Valuation," (with Robert E. Whaley), in F. Fabozzi (ed.) Advances in Options and Futures Research, Volume 1, 1986, pp. 25-62.

"Technological Change in the Back-Office: Implications for Structure and Regulation of the Securities Industry," (with Henry F. Minnerop, Esq.), in A. Saunders and L. White (eds.) <u>Technology and the Regulation of Financial Markets</u>, Lexington, MA: D.C. Heath Lexington Books, 1986, pp. 31-51.

"Expiration Day Effects of Index Options and Futures," (with Robert E. Whaley), <u>Monograph Series in Finance and Economics</u>, Monograph 1986-3, 89 pages.

Op ed comment on "Program Trading and the Market" (with R. E. Whaley) appearing in Guest Speaker column of <u>Financial Analysts Journal</u> (November/December 1986) 1 page.

"Program Trading and Expiration Day Effects," (with Robert E. Whaley), <u>Financial Analysts Journal</u> (March/April 1987) pp. 16-28.

"The Economics of Market Making," in <u>The NASDAQ Handbook</u>, Chicago, IL: Probus Publishing, 1987, pp. 403-424.

"Effects of Options on Underlying Assets," <u>Aussenwirtschaft</u> (The Swiss Review of International Economic Relations), (September 1987) pp. 199-212.

"Index Futures, Program Trading and Stock Market Procedures," <u>Journal of Futures Markets</u> 8 (August 1988) pp. 391-412.

"Program Trading and the Monday Massacre," (with R.E. Whaley), <u>Investment Management Review</u> (January/February 1988) pp. 27-34.

"Volatility and Futures: Message versus Messenger," (with R.E. Whaley), <u>Journal of Portfolio Management</u> (Winter 1988) pp. 20-22.

"Portfolio Trading," Journal of Portfolio Management (Summer 1988) pp. 20-24.

"Emerging World Equity Markets," The Owen Manager 9 (Spring 1988) pp. 8-11.

"Stock Index Futures and Options: Economic Impact and Policy Issues," (with R.E. Whaley), <u>The Journal of International Securities Markets</u> 2 (Spring 1988) pp. 3-18.

"Futures and Options on Stock Indexes: Economic Purpose, Arbitrage, and Market Structure," (with R.E. Whaley), <u>The Review of Futures Markets</u> 7, 2 (1988) pp. 224-248.

"The Dynamics of Stock Index and Stock Index Futures Returns," (with Robert E. Whaley), <u>Journal of Financial and Quantitative Analysis</u> 25 (December 1990) pp. 441-467.

"Inferring the Components of the Bid-Ask Spread: Theory and Empirical Tests," <u>Journal of Finance</u> 44 (March 1989) pp. 115-134.

"Program Trading and Individual Stock Returns: Ingredients of the Triple Witching Brew," (with Robert E. Whaley), <u>Journal of Business</u> 63 (January 1990) pp. S165-S192.

"Market Structure and Transaction Costs: Implied Spreads in the German Stock Market," (with Andreas Haller), <u>Journal of Banking and Finance</u> 13 (September 1989).

"The ABC's of Portfolio Trading," <u>Institutional Investor Money Management Forum</u> 2 (December 1988) pp. 11-12.

"Monday, Bloody Monday," The Owen Manager (Fall 1988) pp. 10-17.

Comments on Regulatory Issues in R. Mackay (ed.), <u>After The Crash</u>, Washington, DC: American Enterprise Institute, 1988, pp. 29-34.

<u>Stock Market Structure, Volatility, and Volume</u> (with Robert E. Whaley), Charlottesville, VA: The Research Foundation of the Institute of Chartered Financial Analysts, 1990, 60 pages.

"Stock Market Structure and Volatility," (with Robert E. Whaley), <u>The Review of Financial Studies</u> 3, 1 (1990) pp. 37-71.

"Margins on Stock Index Futures Contracts," <u>Investing</u> (Spring 1990) pp. 34-39.

"Commentary: International Competitiveness of U.S. Futures Exchanges," <u>Journal of Financial Services Research</u> 4 (1990) pp. 409-413.

"Expiration-Day Effects: What has Changed?" (with Robert E. Whaley), <u>Financial Analysts Journal</u> (January/February 1991) pp. 58-72.

"Major World Equity Markets: Current Structure and Prospects for Change," (with Roger Huang), Monograph Series in Finance and Economics, Monograph 1991-3, 55 pages.

"Trading On and Off Exchanges," <u>Institutional Investor Derivatives Forum</u> (November 1991) pp. 11-13.

"Principles of Trading Market Structure," <u>Journal of Financial Services Research</u> 6 (1992) pp. 75-107.

Guest editor for special issue: "Microstructure of World Trading Markets," <u>Journal of Financial Services Research</u> 6 (1992). Proceedings of a conference held at Vanderbilt.

"The Design of Trading Systems: Lessons from Abroad," (with Roger D. Huang) <u>Financial Analysts Journal</u> (September/October 1992) pp. 49-54.

Co-editor (with Ron Masulis) for special issue: "Market Microstructure and Corporate Finance," <u>Financial Management</u> 21, 4 (Winter 1992).

"Organization of the Stock Market: Competition or Fragmentation?" <u>Journal of Applied Corporate Finance</u> 5 (Winter 1993) pp. 89-93. Also in K. Lehn and R. Kamphuis (eds.) <u>Modernizing U.S. Securities Regulation: Economic and Legal Perspectives</u>, Homewood, IL: Business One Irwin, 1992, pp. 357-364.

"A Policy Perspective on the Papers in Financial Markets," in P. Englund (ed.) <u>Operation and Regulation of Financial Markets</u>, Stockholm: Economic Council (1993) pp. 11-16. Overview of papers presented in August 1992.

<u>Equity Trading Costs</u>, Charlottesville, VA: The Research Foundation of the Institute of Chartered Financial Analysts (February 1993) 50 pages.

"Principles of Inter-Market Regulation," <u>The Journal of Financial Engineering</u> 2 (March 1993) pp. 65-71.

"Equity Trading Costs In-The-Large," <u>Journal of Portfolio Management</u> 19, 4 (Summer 1993) pp. 41-50.

"Market Microstructure and Stock Return Predictions," (with Roger D. Huang), <u>The Review of</u> Financial Studies 7, 1 (Spring 1994) pp. 179-213.

"The Causes and Consequences of the Rise in Third Market and Regional Trading," <u>The Journal of Corporation Law 19, 3 (Spring 1994) pp. 509-521.</u>

"The Importance of Equity Trading Costs: Evidence from Securities Firms' Revenues," in R. Schwartz (ed.) <u>Global Equity Markets: Technological, Competitive, and Regulatory Challenges</u>, Homewood, IL: Irwin (1995) 20 pages.

"Lost Barings: A Tale in Three Parts Concluding with a Lesson," <u>Journal of Derivatives</u> 3, 1 (Fall 1995) pp. 109-115.

Book Review of Market Microstructure Theory by Maureen O'Hara, Review of Financial Studies 8, 4 (Winter 1995) pp. 1235-1238.

"Energy Shocks and Financial Markets," (with Roger D. Huang and Ronald W. Masulis), <u>The Journal of Futures Markets</u> 16, 1 (February 1996) pp. 1-27.

"Competitive Trading of NYSE Listed Stocks: Measurement and Interpretation of Trading Costs," (with Roger D. Huang), <u>Financial Markets</u>, <u>Institutions and Instruments</u> 5, 1 (Spring 1996) 55 pages.

"Dealer Versus Auction Markets: A Paired Comparison of Execution Costs on Nasdaq and the NYSE," (with Roger D. Huang), <u>Journal of Financial Economics</u> 41, 3 (July 1996) Lead Article, pp. 313-357.

"The Components of the Bid-Ask Spread: A General Approach," (with Roger D. Huang), <u>The Review of Financial Studies</u> 10, 4 (Winter 1997) pp. 995-1034.

"Expiration-Day Effects of the All Ordinaries Share Price Index Futures: Empirical Evidence and Alternative Settlement Procedures," (with Robert E. Whaley), <u>Australian Journal of Management</u> 22, 2 (December, 1997) pp. 139 - 174. E. Yetton Award for best paper in 1997.

"Is It Time to Split the S&P 500 Futures Contract?" (with Roger D. Huang), <u>Financial Analysts</u> Journal 54, 1 (January/February, 1998) pp. 23 - 35.

"Regulatory Capital of Financial Institutions: A Comparative Analysis," (with Clifford Ball), Financial Markets, Institutions and Instruments 7, 3 (1998) 57 pages.

"Reconsidering the Affirmative Obligation of Market Makers," <u>Financial Analysts Journal</u> 54, 5 (September/October, 1998) pp. 72 - 82.

Guest editor for special issue: "Ten Years Since the Crash of 1987," <u>Journal of Financial Services Research</u> 13, 3 (June, 1998). Also published as a book, <u>Stock Market Policy Since the 1987 Crash</u>, Kluwer Academic Publishers (1998). Proceedings of a conference held at Vanderbilt.

"Regulation of Financial Markets: A Focused Approach," <u>Multinational Finance Journal</u> 2, 2 (June, 1998) pp. 87 – 99. A slightly revised version entitled "Regulation of Financial Markets: Toward a

Focused Approach," appeared in <u>Journal of Applied Corporate Finance</u> 14, 4 (Winter 2002) pp 122-128.

"Friction," (AFA Presidential Address), <u>Journal of Finance</u>, 55, 4 (August, 2000) pp. 1479 – 1514.

"Exchange Rates and Firms' Liquidity: Evidence from ADRs" (with Roger D. Huang), <u>Journal of International Money and Finance 20 (2001)</u> pp. 297-325. Lead article.

"Market Fragmentation," Financial Analysts Journal 57, 4 (2001) pp.16-20.

"Tick Size, Bid-Ask Spreads and Market Structure" (with Roger D. Huang), <u>Journal of Financial and Quantitative Analysis</u> 36, 4 (2001) pp. 503-522.

"Comment" on Benn Steil, "Changes in the Ownership and Governance of Securities Exchanges: Causes and Consequences," in Brookings-Wharton *Papers on Financial Services*, (edited by R. Litan and R. Herring), 2002, pp 83-88.

"Market Microstructure," in Constantinides, Harris and Stulz (eds.), <u>Handbook of the Economics of Finance</u>, Amsterdam: Elsevier (2003) 52 pages.

"Revenues of Immediacy Suppliers versus Execution Costs of Investors: Evidence from the NYSE," (with Roger D. Huang), in Bruce Lehmann (ed.) <u>The Legacy of Fischer Black</u>, Oxford University Press, 2004.

"Price Impacts of Options Volume" (with Christian Schlag), <u>Journal of Financial Markets</u> 8,1 (2005) pp 69 – 87.

"Trades Outside the Quotes: Reporting Delay, Trading Option or Trade Size?" (with Christoph Schenzler), <u>Journal of Financial Economics</u> 79, 3 (March, 2006) pp 615-653.

"Electronic Trading in Stock Markets," <u>Journal of Economic Perspectives</u> 20, 1 (Winter, 2006) pp 153-174.

"Execution Quality on the NYSE: The Effect of Time Delay," in Bessler, Wolfgang (ed.), 2006, Boersen, Banken und Kapitalmaerkte: Festschrift fuer Hartmut Schmidt, Duncker & Humblot – Berlin, pp 21 – 44.

"Liquidity," (Remarks on the occasion of receiving a Doctor Honoris Causa from Goethe University, Frankfurt), Zeitschrift fuer Bankrecht und Bankwirtschaft 19, 2 (April 15, 2007) pp. 156-158.

"Failure to exercise call options: An anomaly and a trading game," (with Veronika Krepely Pool and Robert Whaley), <u>Journal of Financial Markets</u> 11, 1 (2008) pp. 1 – 35.

"Future of Securities Markets: Competition or Consolidation?" <u>Financial Analysts Journal</u> 64, 6 (November/December, 2008) pp 15 – 26.

"Commodity Index Investing and Commodity Futures Prices," (with R. Whaley), <u>Journal of Applied Finance</u> 20, 7 - 46.

"Commodity Index Investing: Speculation or Diversification?" (with R. Whaley), <u>Journal of Alternative Investments</u> 14, 1 (Summer 2011), 50-60.

"Stock Option Contract Adjustments: the Case of Special Dividends," (with Kathryn Barraclough and Robert E. Whaley, Journal of Financial Markets 15, (2012) pp. 233 – 257.

Working papers:

"Are Order Imbalances Related to Information?" (with Sukwon Kim).

"Dynamic Financial System: Complexity, Fragility, and Regulatory Principles," (with Tom Ho and Miguel Palacios).

Unpublished Articles and Monographs:

Doctoral Dissertation: "The Determinants of Forward Foreign Exchange Rates" (September 1966) 89 pages.

"The Small Business Equity Gap: An Empirical Study," (with Anthony J. Curley), completed for the Small Business Administration, Washington, DC, in May 1968.

"Parallel Trading: The Facts and the Implications," Proceedings, Seminar on Analysis of Security Prices, Chicago (May 1973) 15 pages.

"Discounts and Premiums on Shares of Diversified Closed-End Investment Funds," Rodney White Center Working Paper No. 11-73.

"Options Trading in General and the Appropriate Market Structure for Trading Options," Statement prepared for presentation to Securities and Exchange Commission on 1/21/74.

"Capital Markets and Competition," monograph prepared for Federal Trade Commission, January 1979, 120 pages, (Available by writing Capital Competition, P.O. Box 2220, Springfield, VA 22152), 3 chapters.

"Portfolio Diversification of NYSE Specialist Units," Rodney White Working Paper No. 3-78.

"Expiration Day Effects Revisited," (with Robert E. Whaley), monograph prepared under the auspices of the Financial Markets Research Center of Vanderbilt University and the Futures and Options Research Center at Duke University, February 19, 1990.

GRANTS

America's Community Bankers Grant, 1995-96

Chicago Board Options Exchange Grant, 1995-96

Chicago Mercantile Exchange Grant, 1995-96

Hull Trading Company Grant, 1995-96

New York Stock Exchange Grant, 1995-96

NASDAQ Grant, 1992-93

New York Mercantile Exchange Grant, 1991-92

New York Stock Exchange Grant, 1989-90

Institute of Chartered Financial Analysts Research Grants, 1988-89 and 1991-92

CBOE/CBOT/CME Research Grant, 1987

American Enterprise Institute Research Grant, 1983-85

Small Business Administration Grant, 1983-84

Institute for Quantitative Research in Finance Grant, 1981-82

EXTERNAL COMMITTEES OR BOARDS

Advisory Screening Committee in Business Management, Council for International Exchange of Scholars (Fulbright-Hays Program) 1974-75.

Area Advisory Committee for Western Europe, Council for International Exchange of Scholars (Fulbright-Hays Program) 1977-80.

Administrative Board, S.S. Huebner Foundation for Insurance Education, 1977-80. Member of Research Committee, 1977-85.

Board of Studies for the School of Management of the University of Singapore, January 1980. To plan the establishment of the Singapore Graduate School of Management.

Educational Advisory Committee of the Chicago Board of Trade, 1978-85.

Board of Directors, Institute for the Study of Security Markets 1987-94; Chairman 1990-93.

Southeast Regional Director, Financial Management Association, 1987-90.

Member, Quality of Markets Committee of the National Association of Securities Dealers, 1988.

Member, Advisory Panel for the project, "Securities Markets and Information Technology," Office of Technology and Assessment, U.S. Congress, Washington, DC, 1988-90.

Western Finance Association: Director, 1989-90. President-elect and program chair, 1991-92. President, 1992-93.

Director, American Finance Association, 1990-92.

Member of the Shadow Securities and Exchange Commission, 1990 - 95.

Member of external committee to review the Ph.D. program in business administration at Duke University, 1994.

Public Director, Futures Industry Association, 1994-96.

American Finance Association: Vice President, 1997-98. President-elect and Program Chair, 1998-99. President 1999-2000.

Member of the Economic Advisory Board of the NASD, 1997-1999 (President, 1999).

Public Adviser to the Board of the Pacific Stock Exchange, January – December, 2000.

Public Governor of the Pacific Stock Exchange, December, 2000 - 2004.

Financial Economist Roundtable: Steering Committee 2002 - , Executive Committee, 2003-2005.

Member of external review committee, Stanford Finance Group. May, 2003.

Member of external review committee, Utah Finance Department, February, 2005.

Public Director of the Options Clearing Corporation, 2005 – 2008.

Public Director of Interactive Brokers Group, Inc, 2008 - .

EDITORIAL RESPONSIBILITIES

Editorial Board of Financial Management, 1979-2007.

Editorial Board of the Journal of Financial Research, 1984-2000.

Associate Editor, The Review of Futures Markets, 1984-1999.

Associate Editor, <u>Journal of Financial Economics</u>, 1986-2006.

Associate Editor, Journal of Finance, 1988-2000.

Associate Editor, Journal of Financial and Quantitative Analysis, 1988-2010.

Associate Editor, <u>Journal of Derivatives</u>, 1993-.

Associate Editor, Review of Derivatives Research, 1996-2000.

Associate Editor, European Finance Review, 1997-2004

Advisory Editor, Journal of Financial Markets, 1997-.

Associate Editor, Journal of Financial Intermediation, 1998-2001.

Advisory Editor, Multinational Finance Journal, 2002 -.

Editorial Board, Business Research, 2007 -.

Ad hoc reviewer for a variety of journals and publishers.

CONSULTING

Governmental entities such as the Commonwealth of Pennsylvania (on measurement of investment performance), U.S. Railway Association (on the effects of a forced liquidation of some railroad companies), Federal Trade Commission (on competition and capital markets).

Legal consulting on commodity futures markets, conflicts of interest in securities transactions, trading activity, valuation of a firm, projection of interest rates, market impact of trading in stocks and options.

Exchanges such as PBW Stock Exchange (on options trading), Basel Stock Exchange (on trading systems), six options exchanges (on expiration price effects of index futures and options), NASDAQ (to discuss alternative market structures and the costs of trading), Sydney Futures Exchange (on equity futures).

Department of Justice, Antitrust Division, Economic Analysis Group on stock market structure issues.

Consulting Editor, South-Western Publishing Co., 1986-1997.

MAJOR INTERNAL COMMITTEES

At the Wharton School, University of Pennsylvania:

Chairman, Finance Department Ph.D. Committee and Coordinator of Ph.D. Program, 1972-75.

Associate Director of Wharton Doctoral Programs, Member of Wharton Doctoral Committee and Wharton Doctoral Admissions Committee, 1974-75.

Wharton Graduate Admissions Committee, 1977-79.

Wharton International Committee, 1979-80.

At Vanderbilt University:

University Committees:

Vanderbilt University Research Council, 1981-84.

Vanderbilt Graduate Faculty Council, 1981-84.

Proxy Committee of Vanderbilt University, 1984-85.

Vanderbilt Faculty Senate, 1984-87.

Chairman, Senate Affairs Committee, 1985-86.

Consultative Committee of the Senate, 1985-86.

Search Committee for the Treasurer of Vanderbilt University, 1985.

Search Committee for the Dean of the Owen School, 1985-87.

University Promotion and Tenure Review Committee, 1986-89.

Search Committee for the Provost of Vanderbilt University, 1992-93.

Ingram Scholarship Program Selection Committee 1994-96.

Chair, 1996 Vanderbilt University Faculty-Staff Campaign.

Chairman of the Search Committee for the Dean of the Owen School, 1999 - 2000.

Faculty Awards Review Committee, 2004 - 2010

Owen School Committees:

Program Planning Committee, 1990-92.

EMBA Oversight Committee, 1988-90.

Ph.D. Committee, 1981-86; Chairman, 1981-84.

Chairman of the Tenured Faculty, 1985-88.

Research Committee of the Owen School, 1985-88, 1992-96, 2000-01.

Policy Committee of the Owen School, 1987-89.

Faculty Search Committees in Finance and other fields at various times.

EMBA Committee at various times. Chair 1999 – 2002.

Strategy Committee, 2001 - 2002.

Capital Campaign Steering Committee, 2002 - 2005.

MSF Committee, chair 2011--

MAJOR PH.D. SUPERVISOR

Monroe Haegele, "Influence of Exchange Rate Changes on Stock Prices," 1972.

Tom Copeland, "A Model of Asset Trading Under the Assumption of Sequential Information Arrival," 1973.

Raymond Chiang, "Information Asymmetry, Moral Hazard, and Lending Activities," 1977-79.

Ravi Aiyer, "Exchange Risk, Interest Rates and Financial Structure," 1977-79.

Roger Huang, "Exchange Rate Determination: Causality, Efficiency and Rational Expectations," 1980.

Paul Laux, Three Essays: (1) "Operation of Dealer Markets Under Competition," (2) "Determinants of the Cost of the Asymmetric Information Component of the Bid-Ask Spread," (3) "Investor Holding Periods and Returns under Various Transaction Cost Regimes." 1988

Vijay Chopra, "Information Asymmetry, Price Changes, Trading Volume, and Bid-Ask Spreads: Two Essays." 1990.

Rick Simpson, "Order Placement Strategy in a Continuous Auction Market," 1994.

Hans G. Heidle, "Information, Trading, and Market Making," 2001.

Veronika Krepely Pool, Three Essays, 2006:

- 1. "Is heavy trading good or bad for price discovery? Evidence from options"
- 2. "Option volume and the price dynamics of individual stocks: A link to the information share of options"
- 3. "Liquidity and the risk-return tradeoff"

Sukwon Kim, "Three Essays on Market Microstructure," 2009.