

Vijay Singal

Department Head and J. Gray Ferguson Professor of Finance, Virginia Tech, Pamplin College of Business

CFA charterholder

Ph.D., University of Michigan, Ann Arbor

Joint Director of Finance, Oil and Natural Gas Corporation, India

MBA, Indian Institute of Management, Calcutta

B.Tech., Indian Institute of Technology, Kanpur

Broad Areas: Investments, Corporate Finance, and International Finance

Areas of Expertise: Market mispricings and anomalies, emerging markets, and currency risk management.

Research: Dr. Singal's past and current research covers three major areas: irregularities related to market efficiency, international finance, and resolving finance-related issues using data from one industry, but from financial and product markets. In addition to his research, he has a book titled "Beyond the Random Walk: A Guide to Market Anomalies and Low Risk Strategies" published by Oxford University Press (hardcover, 2004; paperback, 2006). His research has been published in top quality journals such as the American Economic Review, Journal of Business, Journal of Finance, Financial Management, and the Journal of Financial Economics, and in practitioner journals such as Journal of Applied Corporate Finance, Journal of Banking and Finance, Journal of Portfolio Management, Financial Analysts Journal, and Journal of Investment Management. His research has been featured on television (CNN-fn), on radio (National Public Radio, Bloomberg Radio), and in print media such as the Wall Street Journal, Barron's, Washington Post, Chicago Tribune, New York Times, Investor's Business Daily, SmartMoney, Fortune, and Money.

Teaching: Dr. Singal's primary teaching area is Investments. In the past, he has taught International Finance. Dr. Singal was the Program Leader for the first-ever residential summer study abroad program of the school and has led 2 summer study abroad programs to Freiburg, Germany.

Business Experience: Dr. Singal worked for ten years for Oil and Natural Gas Corporation (ONGC) in India prior to joining academia. Some of his responsibilities included negotiating foreign currency syndicated loans, managing foreign exchange risk, and negotiating contracts with shipyards in Norway, Singapore, France and Japan.

Service-related Contributions: Dr. Singal is currently the Department Head of the Finance department at Virginia Tech. As chairperson, he is responsible for all Finance faculty – their recruitment, promotion and tenure, annual evaluations, compensation, etc.; all Finance programs – the undergraduate program with 250 Finance graduates each year, the Finance part of the MBA program, and the Finance doctoral program; secretarial staff; department's budget including allocation of funds to different activities; curriculum development for all courses at all levels; course assignments and scheduling; coordination with alumni, recruiters, and other stakeholders; and all other aspects related to department's administration.

Professional Achievements: Dr. Singal is a member of the American Finance Association, Financial Management Association and the Society for Financial Studies. He is a CFA charter holder and a member of CFA Institute. He has been an ad hoc referee for various journals such as *American Economic Review, Journal of Finance, Review of Financial Studies, Journal of Political Economy, Journal of Financial and Quantitative Analysis, Review of Economics and Statistics,* and the *Journal of Business*.

VIJAY SINGAL

Department Head, Finance J. Gray Ferguson Professor of Finance Pamplin College of Business, Virginia Tech Blacksburg, VA 24061 540-231-7750, 540-231-5904, singal@vt.edu

Education

THE UNIVERSITY OF MICHIGAN, ANN ARBOR, MI Ph.D., Finance.

INDIAN INSTITUTE OF MANAGEMENT, CALCUTTA, INDIA Master of Business Administration (PGDM), Finance.

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR, INDIA Bachelor of Technology, Chemical Engineering.

CFA Charterholder.

Academic Experience

VIRGINIA TECH, BLACKSBURG, VA

Head, Department of Finance, January 2003 – July 2009; July 2014 - Current.

J. Gray Ferguson Professor of Finance, 2002 - Current.

Associate Professor, 1998 – 2002.

Assistant Professor, 1992 – 1998.

STERN SCHOOL OF BUSINESS, NEW YORK UNIVERSITY, NY

Visiting Professor of Finance, 2011-12.

UNIVERSITY OF PARIS, FRANCE

Visiting Professor of Finance, September-October 2016, October 2017.

THE UNIVERSITY OF MICHIGAN, ANN ARBOR, MI

Visiting Faculty: 1991-92.

Industry Experience (details within)

SAPIENT CORP., BOSTON, MA

Board of Directors: 2008 – 2015; Member, Audit Committee: 2008 – 2015; Member, Risk Committee: 2009 – 2012; Chair, Risk Committee: 2010 – 2012; Member, Governance and

Nominating Committee: 2010-2012.

CASTLE FINANCIAL LLC, EDISON, NJ

Consultant: 2004 - Current.

NEW RIVER FUNDS, RADFORD, VA

Board of Trustees: 2003 – 2008.

OIL AND NATURAL GAS COMMISSION, BOMBAY, INDIA

Joint Director of Finance (last position held). 1977-87.

Research - Interests

My current and past research spans three areas:

- Anomalies related to market efficiency, indexed mutual funds and mutual funds (current)
- International finance (currencies, emerging markets, ADRs, and investments), and
- Resolving corporate finance-related issues using data from one industry but from both financial and product markets.

Research – Publications (All author listings are alphabetical)

- 1. "Option Trading after the Opening Bell and Intraday Stock Return Predictability" (with Kelley Bergsma, Andy Fodor, Jitendra Tayal). *Financial Management*. 2019.
- 2. "Comovement Revisited" (with Honghui Chen and Robert Whitelaw). *Journal of Financial Economics*. 2016, 121:624-644.
- 3. "Indexing and Stock Price Efficiency" (with Nan Qin). Financial Management. Winter 2015, 44(4): 875-904.
- 4. "Concentrated Ownership and Firm Performance: Does Family Control Matter?" (with M. Singal). *Strategic Entrepreneurship Journal*. December 2011, 5:375-396.
- 5. "Disposition Bias and the Effect on Mutual Fund Flows" (with Lily Xu). *Journal of Banking and Finance*, October 2011, 35(10), pp. 2704-2718.
- 6. "Information Content of Stock Splits" (with Honghui Chen and Hoang Huy Nguyen). *Journal of Banking and Finance*, September 2011, 35(9), pp. 2454-2467.
- 7. "Index Changes and Losses to Investors in S&P 500 and Russell 2000 index funds" (with Honghui Chen and Greg Noronha). *Financial Analysts Journal*, 2006, July/August, pp. 31-47. *Abstracted in the CFA Digest, November 2006; Webcast by CFA Institute in September 2006.*
- 8. "S&P 500 Index Changes and Investor Awareness" (with Honghui Chen and Greg Noronha). *Journal of Investment Management*, 4(2), 2006, pp. 23-37. *Abstracted in the CFA Digest, February 2007.*
- 9. "Exchange Rate Exposure of Exporting and Importing Firms" with Mahesh Pritamani and Dilip Shome. *Journal of Applied Corporate Finance*, Summer 2005, 17(3), pp. 87-94.
- 10. "The Price Response to S&P 500 Index Additions and Deletions: Evidence of Asymmetry and a New Explanation" (with Honghui Chen and Greg Noronha). *Journal of Finance*, August 2004, 59(4), 1901-1929.
- 11. "All Things Considered, Taxes Drive the January Effect" with Honghui Chen. <u>Journal of Financial Research</u>, Fall 2004, Vol. 27. This paper won the Best Paper Award for 2004 (\$5,000).
- 12. "Foreign exchange exposure of exporting and importing firms" with Mahesh Pritamani and Dilip Shome. *Journal of Banking and Finance*, July 2004, 28(7), pp. 1697-1710.
- 13. "Financial Health and Product Safety" with Greg Noronha. *Managerial and Decision Economics*, January/February 2004, 25(1), p. 1-16. Lead article.
- 14. "A December Effect with Tax-Gain Selling?" with Honghui Chen. *Financial Analysts Journal*. July/August 2003, 59(4), 78-90.
- 15. "Do Short Sellers Cause the Weekend Effect" with Honghui Chen. <u>Journal of Investment</u> Management, 2003, 1(3), 20-35.
- 16. "Speculative Short Sales and the Weekend Effect" with Honghui Chen. *Journal of Finance*, April 2003, 58(2), 685-705.
- 17. "Tax Savings with Mutual Fund Distributions". *Journal of Portfolio Management*, Fall 2002, 29(1), pp. 82-88. Abstracted in the CFA Digest (May 2003).
- 18. "Return predictability following large price changes and information releases" with Mahesh Pritamani. *Journal of Banking and Finance*, April 2001, 25(4), pp.631-656 (lead article).
- 19. "The Fear of Globalizing Capital Markets" with E. Han Kim. *Emerging Markets Review*, November 2000, 1(3), pp. 183-198 (lead article). In the top 10 requested articles during 2003.
- 20. "Opening of Stock Markets: Experience of Emerging Economies" with E. Han Kim. <u>Journal of Business</u>, January 2000, 73(1), pp. 25-66.
- 21. "Floating Currencies, Capital Controls, or Currency Boards? What's the best remedy for the recent currency crises". *Journal of Applied Corporate Finance*, Winter 1999, pp. 40-56. Abstracted in the CFA Digest (Fall 1999).

- 22. "The Competitive Impact of Air Crashes: The Stock Market Evidence" with J.C. Bosch and Woody Eckard. *Journal of Law and Economics*, October 1998, pp. 503-519.
- 23. "Are Open Markets Good for Foreign Investors and Emerging Nations" with E. Han Kim. *Journal of Applied Corporate Finance*, Fall 1997, 10(3): 18-33.
- 24. "Privatization and Efficiency: Industry Effects of the Sale of British Airways" with Catherine Eckel and Doug Eckel. *Journal of Financial Economics*, February 1997, pp. 275-298.
- 25. "Interdependence of Airline Firms: Evidence from Airline Mergers". <u>Managerial and Decision Economics</u>, November/December 1996, pp. 559-574.
- 26. "Airline Mergers and Competition: An Integration of Stock and Product Price Effects". <u>Journal of Business</u>, April 1996, pp. 233-268.
- 27. "Mergers and Market Power: Evidence from the Airline Industry" with E. Han Kim. <u>American Economic Review</u>, June 1993, pp. 549-569.

Research - Books, Book Chapters, Reprints, and Other Scholarly Work

- 1. Chapter on *Indexes: Purpose, Construction and Performance* in "Institutional Money Management: Objectives, Constraints, and Strategies" edited by Hany Shawky and David Smith, Wiley Handbooks, 2012.
- 2. CFA Institute. Claritas Investment Certificate Program, 2012. The curriculum contains three chapters authored by me: Chapter 9 on Fixed Income securities, Chapter 10 on Equity securities, and Chapter 11 on Derivative securities. Professionals in the financial services industry are expected to take an exam based on these chapters.
- 3. CFA Program, Level I curriculum, 2011 to 2020. The Level I curriculum contains two chapters authored by me on Portfolio Risk and Return Part I and Portfolio Risk and Return Part II. These are required readings for about 60,000 candidates every year.
- 4. The article "Index Changes and Losses to Investors in S&P 500 and Russell 2000 index funds" is reprinted in *Investment Performance Measurement: Evaluating and Presenting Results*, edited by Philip Lawton and Todd Jankowski, and published by John Wiley and Sons (2009) in the CFA Institute Investment Perspectives series.
- 5. "Chinks in the armour of market efficiency" by Vijay Singal. Union Bank of Switzerland's Wealth Management magazine, 3rd quarter, 2005, pp. 28-29. Translated into Italian, Swiss, French, and other languages.
- 6. The article "Mergers and Market Power: Evidence from the Airline Industry" is reprinted in *Corporate Governance* edited by David Denis and John McConnell and published by Edward Elgar Publishing (2005) in the International Library of Critical Writings in Financial Economics.
- 7. The article "Opening of Stock Markets: Experience of Emerging Economies" is reprinted in *Emerging Markets* edited by Geert Bekaert and Campbell Harvey and published by Edward Elgar Publishing (2004) in the International Library of Critical Writings in Financial Economics.
- 8. Singal, V. Beyond the Random Walk: A Guide to Market Anomalies and Low Risk Strategies. This is an original book published by Oxford University Press (2004), and then reissued in paperback (2006).

Chapter 1 of the book is included in Level I of the CFA Program as one of the required readings. 2006-2010.

- 9. Roanoke Times (March 8, 2003): A column on not investing in employer stock.
- 10. "Opening of Stock Markets in Emerging Economies: Effect on Portfolio Flows and Volatility of Stock Prices" with E. Han Kim in *Portfolio Investment in Developing Countries* edited by Stijn Claessens and Sudarshan Gooptu, World Bank Discussion Paper, The World Bank, Washington, D.C., December 1993, pp. 383-403.

Current Research - Completed Working Papers

1. "EW vs. EW: Theory and Practice" (with Nan Qin).

- 2. "Short Positions and Asymmetric Risk Premium: Evidence from Futures Markets" (with Jitendra Tayal). Revise and Resubmit, *Journal of Futures Markets*.
- 3. "Stock Prices Matter" (with Jitendra Tayal).
- 4. "Are Earnings Predictable? Evidence from equity issues and buyback announcements" (with Shahram Amini).
- 5. "HFT Intensity and Stock Returns" (with Nan Qin).
- 6. "Honghui Chen, Vijay Singal, Robert Whitelaw: Volatility in a News Vacuum " (with Kelley Bergsma, Andy Fodor, and Jitendra Tayal). Best Paper Award at the FMA Applied Finance Conference (August 2018).

Research - Presentations

- 1. "Option Trading after the Opening Bell and Intraday Stock Return Predictability" FMA Applied Finance Conference (August 2018). Best Paper Award. Presented by co-author.
- 2. Financial Management Association, October 2017. "Are Earnings Predictable? Evidence from equity issues and buyback announcements". Presented by co-author.
- 3. In defense of stock returns, October 2017. University of Paris, France.
- 4. Stock Prices Matter, September 2016. University of Paris, France.
- 5. Super Bowl of Indexing Conference, Scottsdale, AZ. Panel Chair, December 2015.
- 6. Financial Management Association, October 2015. "Investor Portfolios When Stocks are Mispriced" (with Nan Qin).
- 7. Financial Management Association, October 2015. "Nominal Stock Prices Matter" (with Jitendra Tayal).
- 8. NBER Conference, 2015. « Comovement Revisited." Presented by co-author.
- 9. ETF and Indexing Forum, April 2015. Albany, New York. Keynote Speaker. 'Investor Portfolios When Stocks are Mispriced'.
- 10. Family Enterprise Research Conference, June 2015. Burlington, Vermont. Keynote speaker.
- 11. Financial Management Association, 2014. "Comovement and Momentum" (with Honghui Chen and Robert Whitelaw).
- 12. Financial Management Association, 2014. "Does Unconstrained Short Selling Result in Unbiased Security Prices? Evidence from Futures Markets" (with Jitendra Tayal).
- 13. Super Bowl of Indexing Conference, Scottsdale, AZ. Panel Participant and Panel Chair, 2014.
- 14. Presentation at the University of Amherst's Isenberg Business School: Does Unconstrained Short Selling Result in Unbiased Security Prices? Evidence from Futures Markets. September 2014.
- 15. Super Bowl of Indexing Conference, Scottsdale, AZ. Panel Participant and Panel Chair, 2013.
- 16. Family Enterprise Research Conference, 2013. "CSR and Ownership" with M. Singal. Awarded the Best Paper/Poster Prize.
- 17. Super Bowl of Indexing Conference, Panel Participant and Panel Chair, 2012.
- 18. Family Enterprise Research Conference, 2012. "Strategic Value of Family Names" with M. Singal. Awarded the Second Best Paper/Poster Prize.
- 19. Super Bowl of Indexing Conference, Panel Participant and Panel Chair, 2011.
- 20. Pamplin Research Seminar, 2011. "CEO Pay and Board Power: Are they related? Evidence from family-controlled and nonfamily-controlled S&P 500 firms."
- 21. Super Bowl of Indexing Conference, Panel Participant and Panel Chair, 2010.
- 22. Financial Management Association, 2010. "CEO Pay and Board Power: Are they related? Evidence from family-controlled and nonfamily-controlled S&P 500 firms".
- 23. Family Enterprise Research Conference, 2010. "Family Control or Concentrated Ownership: What determines firm value? Evidence from India" with M. Singal. Awarded the Best Paper/Poster Prize.
- 24. Super Bowl of Indexing Conference, Panel Participant and Panel Chair, 2009.
- 25. Family Enterprise Research Conference, 2009. "CEO Compensation in Family Controlled Firms" with M. Singal.
- 26. Super Bowl of Indexing Conference, 2008. "The Active or Passive Decision: At Odds or Complementary?"
- 27. Strategic Management Society Conference, India, 2008. "Effect of Concentrated Ownership on firm performance in India" with M. Singal.

- 28. Strategic Management Society Conference, Cologne, 2008. "Interest Alignment and CEO Compensation in Family Controlled Firms", with M. Singal.
- 29. Strategic Management Society, 2006. "Are Anti-Takeover Provisions Effective Deterrents to Takeovers?" with M. Singal.
- 30. Temple University, 2005. "Signaling with Stock Splits: Who Picks Up the Signals?"
- 31. Securities and Exchange Commission, 2005. "Index changes and losses to index fund investors" with Honghui Chen and Greg Noronha.
- 32. University of Arkansas, Fayetteville, 2005. "Index changes and losses to index fund investors" with Honghui Chen and Greg Noronha.
- 33. Financial Management Association, 2004. "Preannounced index changes and losses to index fund investors" with Honghui Chen and Greg Noronha.
- 34. Commodity Futures Trading Commission, Washington, DC, 2004. "Does Aggregation of Information by Futures Reduce Momentum?"
- 35. University of Massachusetts, Amherst, 2003. "Does Aggregation of Information by Futures Reduce Momentum?"
- 36. European Financial Management Association, 2002. "The Price Impact of S&P 500 Index Additions and Deletions".
- 37. Financial Management Association, 2001. "January Effect A Re-examination" with Honghui Chen.
- 38. University of Alabama, 2000. "Stock Prices and Exchange Rates".
- 39. Financial Management Association, 1999. "Financial Health and Airline Safety".
- 40. University of Tokyo, 1999. "Open Capital Markets and Corporate Governance". Paper presentation and Panel discussion.
- 41. University of South Carolina, 1999. "Stock Market Openings: Experience of Emerging Economies".
- 42. American Economic Association, 1999. "Financial Health and Airline Safety".
- 43. Financial Management Association, 1997. "The Competitive Impact of Air Crashes".
- 44. Financial Management Association, 1997. "On the Coattails of Stealth Traders: Profitable Strategies for Small Traders" with Mahesh Pritamani.
- 45. University of North Carolina, 1996. "Privatization and Efficiency: Industry Effects of the Sale of British Airways" with C. Eckel and D. Eckel.
- 46. Financial Management Association, 1995. "Corporate Performance Around New Financings" with Rob Hansen.
- 47. Financial Management Association, 1995. "Privatization and Efficiency: Industry Effects of the Sale of British Airways" with C. Eckel and D. Eckel.
- 48. Financial Management Association, 1993. "Airline Mergers and Competition: An Integration of Stock and Product Price Effects".
- 49. World Bank Conference on Emerging Economies, 1993.
- 50. University of Chicago, 1992. "Airline Mergers, Market Power, and Efficiency".
- 51. University of Rochester, 1992. "Airline Mergers, Market Power, and Efficiency"
- 52. U.S. Department of Justice, 1992. "Airline Mergers, Market Power, & Efficiency".
- 53. Wayne State University in 1991, Michigan State University in 1991, and the Financial Management Doctoral Seminar in 1991. "Airline Mergers, Market Power, and Efficiency"

Research – Doctoral Students

- 1. Student co-authored published papers:
- a. "Option Trading after the Opening Bell and Intraday Stock Return Predictability" (with Kelley Bergsma, Andy Fodor, Jitendra Tayal). *Financial Management*. 2019.
- b. "Comovement Revisited" (with Honghui Chen and Robert Whitelaw). *Journal of Financial Economics*. 2016, 121:624-644.
- c. "Indexing and Stock Price Efficiency" (with Nan Qin). Financial Management. Winter 2015, 44(4): 875-904.
- d. "Disposition Bias and the Effect on Mutual Fund Flows" (with Lily Xu). *Journal of Banking and Finance*, October 2011, 35(10), pp. 2704-2718.
- e. "Information Content of Stock Splits" (with Honghui Chen and Hoang Huy Nguyen). *Journal of Banking and Finance*, September 2011, 35(9), pp. 2454-2467.

- f. "Index Changes and Losses to Investors in S&P 500 and Russell 2000 index funds" (with Honghui Chen and Greg Noronha). *Financial Analysts Journal*, 2006, July/August, pp. 31-47. *Abstracted in the CFA Digest, November 2006; Webcast by CFA Institute in September 2006.*
- g. "S&P 500 Index Changes and Investor Awareness" (with Honghui Chen and Greg Noronha). *Journal of Investment Management*, 4(2), 2006, pp. 23-37. *Abstracted in the CFA Digest, February* 2007.
- h. "Exchange Rate Exposure of Exporting and Importing Firms" with Mahesh Pritamani and Dilip Shome. *Journal of Applied Corporate Finance*, Summer 2005, 17(3), pp. 87-94.
- "The Price Response to S&P 500 Index Additions and Deletions: Evidence of Asymmetry and a New Explanation" (with Honghui Chen and Greg Noronha). <u>Journal of Finance</u>, August 2004, 59(4), 1901-1929.
- j. "All Things Considered, Taxes Drive the January Effect" with Honghui Chen. *Journal of Financial Research*, Fall 2004, Vol. 27. This paper won the Best Paper Award for 2004 (\$5,000).
- k. "Foreign exchange exposure of exporting and importing firms" with Mahesh Pritamani and Dilip Shome. *Journal of Banking and Finance*, July 2004, 28(7), pp. 1697-1710.
- 1. "Financial Health and Product Safety" with Greg Noronha. <u>Managerial and Decision Economics</u>, January/February 2004, 25(1), p. 1-16. Lead article.
- m. "A December Effect with Tax-Gain Selling?" with Honghui Chen. *Financial Analysts Journal*. July/August 2003, 59(4), 78-90.
- n. "Do Short Sellers Cause the Weekend Effect" with Honghui Chen. *Journal of Investment Management*, 2003, 1(3), 20-35.
- o. "Speculative Short Sales and the Weekend Effect" with Honghui Chen. *Journal of Finance*, April 2003, 58(2), 685-705.
- p. "Privatization and Efficiency: Industry Effects of the Sale of British Airways" with Catherine Eckel and Doug Eckel. *Journal of Financial Economics*, February 1997, pp. 275-298.
- 2. Thesis Committee Nan Qin (Chair), Jitendra Tayal (Chair), Shahram Amini (Co-Chair), Mahesh Pritamani (Chair), Lily Xu (Chair), Saiyid Islam, Cheulho Lee, Douglas Eckel, Hoang Nguyen, Gokhan Sonaer, Jon Pyzoha, and Nikos Artvanis.

Research - Media Coverage

My research has been featured in the media as below:

*In prominent newspapers and magazines:

Wall Street Journal (June 3, 2011), Wall Street Journal (April 21, 2008), Wall Street Journal (June 3, 2006), Wall Street Journal (April 13, 2006), Barron's (April 3, 2006), Investment News (May 27, 2007; March 20, 2006 with photo), New York Times (March 12, 2006), SmartMoney (October 2005), Fortune (August 9, 2004), New York Times (July 4, 2004), Pittsburgh Post-Gazette (July 12, 2004), Yahoo! Finance trivia quizzes (May 10-12, 2004, April 29-May2, 2004, April 7-9, 2003), Money magazine (January 2004), SmartMoney (December 2003), Globe and Mail (January 12, 2004), Atlanta Journal-Constitution (November 29, 2003), Newsday (November 9, 2003 and October 2, 2003), Washington Post (January 10, 1998), Chicago Tribune (June 26, 1993), Investor's Business Daily (March 9, 1998 and August 7, 1991), Chronicle of Higher Education (March 13, 1998 with photo), Richmond Times-Dispatch (December 25, 2000 and January 28, 2001).

*In other newspapers and magazines:

Cents (American Airlines Publishing, Winter 2010), Herald Tribune (November 16, 2009), CFA Institute webcast of the paper in the Financial Analysts Journal (one hour long), Business Day (May 30, 2006), Index Universe.com (April 14, 2006), Roanoke Times (July 10, 2005), Sunday Times (April 3, 2005), Roanoke Times (January 14, 2005), Del Mar Times (August 27th 2004), Regent News (July 25th, 2004), FPA Journal (June 2004), Sarasota Herald-Tribune (May 30th, 2004), Pamplin MBA magazine (Spring 2004), Spirit - Southwest Airlines' inflight magazine (January 2004), Financial Post (December 9, 2003), CFA Magazine (September/October 2003 on behavioral finance), Times Union (December 1, 2003), Roanoke Times (November 30, 2003, February 15, 2013), The Daily Gazette (October 27, 2003), The Journal News (September 12, 2003 on mutual fund mispricing and timing), Virginian Pilot (August 21, 2003 regarding corporate dividends), Virginia Tech Magazine (Summer 2003), Pamplin Newsletter (Spring 2003), Roanoke Times (March 21, 2003), MSN Money (November 21, 2002), Associated Press Newswire (February 13, 2001), MBA Bullet Point (February 15-28, 2000), Roanoke Times (September 15, 1993 and April 4, 1999), Ottawa Citizen (February 28, 1999), International Securities Regulation Report (September

24, 1998), Business Finance (October 1998), Blue Ridge Business Journal (October 1998), New Orleans Times (January 10, 1998), Pamplin Newsletter (1998), and Newark Star-Ledger (October 29, 1997).

*On television:

Public Broadcasting Corporation (Blue Ridge television, May 25, 2004), CNN-fn (national, December 30, 2003), Channel 7 (local, May 25, 2000 and May 26, 2000);

*On radio:

Detroit Radio (April 22, 2004), Bloomberg Radio (December 26, 2003 and November 10, 2003), Business Radio (Boston/NE, December 10, 2003 and November 15, 2003), Investors Radio Network (Stock Doctor, November 25, 2003), Ottawa Radio (November 7, 2003), Richmond Radio (WRAV – May 26, 2000), Radio Q99.1 (May 2000), National Public Radio (May 2000), and WVTF radio (week of February 9, 1998).

* Full-length Reviews of Beyond the Random Walk:

Journal of Social, Political, and Economic Studies (2005), Journal of Financial Research (December 2004, pp. 603-604), Virginia Tech Research Magazine (Winter 2004), Financial Analysts Journal (April 2004), FPA Journal (June 2004), Journal of Investment Management (Winter 2004), Globe and Mail (January 12, 2004), and Briefing.com (March 30, 2004).

Teaching - Experience

- 1. Taught part of the International Finance course in the Master's program at the University of Paris, Nanterre, France during September/October 2016.
- 2. Currently teach an Equity Securities course at the undergraduate level and MBA levels at Virginia Tech.
- 3. Taught two sections of a course on UG international financial management at the Stern School of Business, New York University during Spring 2012. Letter of Appreciation from the UG Dean of Stern School for outstanding teaching.
- 4. Taught international finance at undergraduate and MBA levels (30 sections of International Finance at the undergraduate level and about 10 sections of International Finance at the graduate level). Taught the Financial Theory course at the Ph.D. level.
- 5. Taught courses on Financial Environment of Business and Investments in the Executive and Professional MBA programs of Virginia Tech, from their inception in 2004 to 2009.
- 6. Taught an MBA course on Currencies and Global Finance at the Indian Institute of Foreign Trade, New Delhi, in 2004 and 2005.
- 7. Taught a one-day Executive Development Program on Currency Risk Management at the Indian Institute of Foreign Trade in August 2004. Taught a one-day Executive Development Program on Market Efficiency and Inefficiencies at IIFT in July 2005.
- 8. Led two summer study abroad programs to Freiburg, Germany during the summers of 1998 and 1999 where I taught a course on International Finance.
- 9. Taught Finance courses at the University of Michigan at both undergraduate and graduate levels. For excellence in teaching, I was awarded the Dykstra Fellowship by the University of Michigan and a Letter of Appreciation from the Dean of the Michigan Business School for outstanding teaching.

Teaching – Interests

My teaching interests include investments, introductory finance, and international finance at all levels. As my teaching experience shows, I have taught at the undergraduate, MBA, Executive MBA, and Ph.D. levels. My current area of research corresponds with basic and advanced courses in investments.

Service (Professional) - Editorial Boards

1. Member of the Editorial Board of Financial Analysts Journal from January 2008 to December 2010. Reappointed for the 2011-2012 period.

- 2. Member of the Editorial Board of Investment Management and Financial Innovations from April 2004 to December 2015.
- 3. Member of the Editorial Board of International Journal of Portfolio Analysis & Management since September 2011.
- 4. Member of the Editorial Board of International Review of Applied Financial Issues and Economics since January 2012.
- 5. Member of the Editorial Board on the Financial Management Association's Survey and Synthesis Series (2001 to 2010). The board is responsible for selecting and recommending topics and books for publication.

Service (Professional) - Reviewer and Conference Participation

- 1. Member, Panel of Judges for the Standard and Poor's SPIVA prizes for the best papers on indexing. 2012, 2013.
- 1. Reviewed journal articles for Journal of Finance (2001, 2002 twice, 2003, 2008, 2010, 2013, 2015, 2016 twice), Review of Financial Studies (2005, 2006, 2008, 2014), Journal of Financial and Quantitative Analysis (2005, 2006, 2007-twice, 2009 twice, 2011, 2013, 2016 twice), International Journal of Hospitality Management (2015), American Economic Review (2002), Journal of Political Economy (2001), Journal of Business (2001 twice), Financial Analysts Journal (2004 twice, 2005 thrice, 2006 three times, 2007 four times, 2008 four times, 2009 four times, 2010 twice, 2011-five times, 2012 3 times, 2014, 2015), Journal of Banking and Finance (2000, 2001, 2004, 2005, 2006-four times, 2007, 2008), Journal of International Money and Finance (1999, 2001, 2003), Financial Management (1999, 2008, 2009, 2010, 2011, 2013), Review of Economics and Statistics (1993, 1997, 2000, 2006), Journal of Corporate Finance (2006, 2011), European Finance Review (2002), Journal of Industrial Economics (1995, 1998), Review of Economic Studies (2010), Journal of Economics and Business (2001), Journal of Financial Research (1993, 1996, 1997, 1998, 2002, 2003, 2004 twice, 2005, 2006 twice, 2007), Journal of International Financial Management and Accounting (1999), Financial Review (2000, 2001), Journal of Financial Markets (2004, 2005, 2007, 2015, 2017 twice, 2018 twice, 2019), Investment Management and Financial Innovations (2004, 2005, 2013) and the Journal of Asian Business (1999).
- 2. Refereed and evaluated grants for the National Science Foundation (1997, 1998).
- 3. Reviewed books: Multinational Business Finance by Eiteman, et al. for Addison-Wesley, International Corporate Finance by Robyn for Addison-Wesley, International Corporate Finance by unknown author for Addison-Wesley, International Finance by H. Kent Baker, Multinational Finance by Kirt Butler, International Finance by James Baker, and two texts on Emerging Markets for Addison-Wesley.
- 4. Reviewed tenure/promotion cases of faculty at U. Arkansas, Brock University, Northeastern University, U. Massachusetts Amherst, Rutgers University, and SUNY Binghamton.
- 5. Discussant or chair at the following professional meetings: i) American Finance Association Meetings, 2001, ii) Financial Management Association, 2001, 2004 iii) European Financial Management Association, 2002, iv) Allied Social Sciences Association, 1998, v) Conference on Financial Economics Accounting at New York University, 1992, vi) Eastern Finance Association, 1995, vii) Financial Management Association, 1992.
- 6. Session organizer for several sessions at the FMA 2002, FMA 2003, FMA 2004, FMA 2006, FMA 2009, and FMA 2010 meetings reviewed and selected papers for acceptance, and identified the chairpersons and discussants.
- 7. Chair of the External Review Committee for the Finance program at Temple University's Fox School of Business (2016). The Committee consisting of two people evaluated the entire program including tenure-track faculty, non-tenure track faculty, college policies and how they affected the department, undergraduate curriculum, graduate curriculum, and the student body. Meetings were held with the dean, department head, all faculty, and representative groups of graduate and undergraduate students.

Service (Organizational)

1. Head, Department of Finance, from July 2014 to Current. Also previously from January 2003 to July 2009. As department head, I am responsible for all Finance faculty – their recruitment, promotion and tenure, annual evaluations, compensation, etc.; all Finance programs – the undergraduate program with 350

Finance graduates each year, the Finance part of the MBA program, and the Finance doctoral program; secretarial staff; department's budget including allocation of funds to different activities; curriculum development for all courses at all levels; course assignments and scheduling; coordination with alumni, recruiters, and other stakeholders; and all other aspects related to department's administration.

- 2. Served as member or chair of committees: Member of College Honorifics Committee; Member of College Promotion and Tenure Committee; Member of College MBA Advisory Committee; Member of College Library Committee; Chair and Member of MBA Curriculum Committee; Chair and Member of Finance Faculty Search Committee; Member HTM Faculty Search Committee; Chair and Member of Seminar Series Committee; Chair and Member of Computer Committee; and Member of Department Head Search Committee, and Ph.D. Program Committee.
- 3. Member, University Commission on Research, 2001 to 2004.

Service (International)

- 1. Past research and some of my current research is related to international aspects of finance. In particular, I have studied how emerging markets get affected by liberalization of capital flows, how changes in exchange rates affect stock prices, and why forward exchange rates are biased. For more details, please see the listings under Research.
- 2. Study Abroad Programs: I was responsible for all aspects of the Freiburg Study Abroad program during its first two years including design and development, marketing, organization, and teaching. Awarded the University Certificate for International Programs in 2002.
- 3. Participated in a panel discussion and presented a paper to an audience of about 600 business people and academics on "Economic Freedom" in Tokyo under the auspices of the University of Tokyo in June 1999.
- 4. Past industry experience in international business has significantly helped me communicate real life experiences to students of International Finance. In my previous job, I handled several important assignments including i) Negotiating foreign currency syndicated loans; ii) managing foreign exchange risk; iii) Insuring and reinsuring in international markets for assets valued at \$2 billion; and iv) Negotiating and finalizing contracts with shipyards in Norway, Singapore, France, and Japan.

Service (Outreach)

- 1. Presentation to the Roanoke chapter of the Virginia Tech Alumni Association on Beyond the Random Walk. May 26, 2004.
- 2. Presentation to the Roanoke Valley Asian Business Owners Association on small business and the financial crisis. March 17, 2009.

Association with the CFA Institute

- 1. CFA charter-holder since 2002.
- 2. Chapter 1 of my book Beyond the Random Walk is included in Level I of the CFA Program as one of the required readings. 2006-2010.
- 3. CFA Program, Level I curriculum, 2011 to 2019. The Level I curriculum contains two chapters authored by me on Portfolio Risk and Return Part I and Portfolio Risk and Return Part II.
- 4. Fundamentals of Investments Certificate program, 2012. The curriculum contains three chapters authored by me: Chapter 9 on Fixed Income securities, Chapter 10 on Equity securities, and Chapter 11 on Derivative securities. Tens of thousands of professionals in the financial services industry are expected to take an exam based on these chapters.
- 5. Everest Program: assisted in the design of curriculum, chapters, and chapter content for the Investment Foundations certificate program. April 2011.
- 6. Member of Education Advisory Committee Working Body, 2007 2010.
- 7. Member, CFA Level III Standard Setting Group, July 2009.
- 8. Member of Candidate Curriculum Committee for 2002-03. Responsible for designing the curriculum for 2004 CFA Program. Included in the list of acknowledgements on study guides for the 2004 program.

- 9. Reviewer for several chapters of the second edition of Quantitative Methods for Investment Analysis during 2003-04. Included in the list of acknowledgements of text book.
- 10. Reviewer of the 2004 CFA examination prior to administration including review of examination questions, guideline answers, graders' keys, and other analyses.

Awards and Honors

- 1. Appointed to titled professorship: J. Gray Ferguson Professor of Finance in recognition of outstanding contribution to research and teaching.
- 2. Virginia Tech Scholar of the Week. Week of September 26, 2005. One researcher is chosen every week from among 1500 faculty members.
- 3. Awarded the University Certificate for International Programs in 2002.
- 4. Awarded the College Certificate of Teaching Excellence and University Certificate of Teaching Excellence, in 1998.
- 5. Ranked 43rd in the world based on research productivity by an independent survey in 2005.
- 6. Elected to Sapient Corporation's Board of Directors (from June 2008).
- 7. Selected by the Fulbright Commission as a Fulbright Senior Specialist. Senior specialists are selected by a review panel based on the applicants' research and teaching records. I visited Nepal in September 2007 as a Senior Specialist for assisting (KEC) interested in expanding into business and in collaborating with a U.S. university. I studied the educational system, and met with leaders of several other institutions including Tribhuvan University and Kathmandu University. Based on my understanding of the educational system and KEC, I made several recommendations that the institution intends to consider over the next few years.
- 8. Awarded the Dykstra Fellowship by the University of Michigan for excellence in teaching.
- 9. Letter of Appreciation from the Dean of the Michigan Business School for outstanding teaching.

Industry Experience

- 1. June 1977 to August 1987. Oil and Natural Gas Corporation, India. Joint Director of Finance. Supervised a group of 30 people responsible for providing financial services to the Bombay Offshore project. Special assignments included i) Negotiating foreign currency syndicated loans and managing foreign exchange risk; ii) Insurance in the international market for ONGC's assets valued at \$2 billion; iii) Negotiation and finalization of contracts with shipyards in Norway, Singapore, France, and Japan; iv) Marketing and negotiation of contracts for sale of natural gas; v) Setting up and managing a computer group for management reporting and payroll; and vi) Preparation of feasibility reports for board approval, and financial evaluation of bid packages for all major purchases.
- 2. July 2003 to December 2008. Member, Board of Trustees, New River Funds, Radford, VA. New River Funds was started as a complex of three mutual funds by an entrepreneur (RJ Kirk) to expand his investment management expertise into a money management enterprise, also designed to raise capital for investment in private firms. In 2003, New River Funds bought two ongoing money management firms, one investing in small cap stocks and the other in large cap stocks and bonds. The funds were managed through sub-advisors (one in Memphis, TN and the other in Rochester, NY) under the control of New River Advisors.

As an independent trustee on the Board of Trustees, I was responsible for evaluating fund performance with reference to their benchmarks, ensuring that funds' investment strategy was consistent with the stated policies of the Funds, and that the operation of the Funds was consistent with the law and investment regulations. The board met 4 times a year in person. I was a member of the Audit Committee, and designated a financial expert. The New River Funds complex was profitably sold as a going concern to another company in Tennessee in 2008.

3. June 2008 - 2015. Sapient Corporation, Boston, MA (Ticker: SAPE). In 2015, we decided to sell the company to Publicis, one of the largest marketing consulting firms. Member, Board of Directors; Chair, Risk Committee, 2009-12; Member, Audit Committee (also a financial expert), 2008 - 2015; Member, Governance and Nominating Committee, 2010-12.

Sapient is a global services firm that helps clients compete, evolve and grow in an increasingly complex marketplace. It provides brand and marketing strategy expertise and business and IT strategy services. Clients include Coke, Mars, Citigroup, Travelers, JC Penney, Target, UBS, Chevron, Vodafone, Sony Electronics, Chrysler and Verizon. Its 10,000 employees span the globe with about 60% located in India. Although diverse in demography and functional expertise, the board of directors was a cohesive group discussing strategic issues carefully and effectively. Based on my background and expertise, I was able to contribute directly to areas like cash management, dividends and stock repurchases, currency risk management including hedging strategies through futures, options and natural hedging, and managing Indian operations especially with significant differences in culture and expectations. As a board team, we were effective in keeping costs under control while strategically making acquisitions and expanding into high growth areas like government services and trading and risk management. The Board met 4 times a year in person and about 6-7 times telephonically.

4. April 2004 – current. Consultant, Castle Financial, Edison, NJ. I assist the company in designing and implementing investment strategies based on my financial experience and investment research.