VITA

ROBERT E. BROOKS

University Information:

Wallace D. Malone, Jr. Endowed Chair of Financial Management

Department of Economics, Finance and Legal Studies

College of Commerce and Business Administration

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Corporate Information:

President

Financial Risk Management, LLC

13157 Martin Road Spur

Northport, AL 35473

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rbrooks@frmhelp.com

http://www.frmhelp.com

http://www.linkedin.com/in/frmhelp

EDUCATION:

Series 7, 63 exams passed in 1999, retaken and passed in 2004. Series 3 exam passed in 2004. All licenses related to these exams have expired.

CFA Chartered Financial Analyst – 1991

Ph.D. University of Florida – 1986

Finance

B.S. Florida State University – 1981

Finance

PROFESSIONAL EMPLOYMENT EXPERIENCES:

2007 - Present	Wallace D. Malone, Jr. Endowed Chair of Financial Management University of Alabama (see https://culverhouse.ua.edu/directory/profile/rbrooks)
1997 – Present	Professor of Finance University of Alabama
1995 – Present	Director, Master of Science in Finance University of Alabama
2000 – Present	President, Financial Risk Management, LLC, Financial risk management consulting company (see www.frmhelp.com)
2003 – 2014	Board Member and a Founding Partner, Blue Creek Investment Partners, LLC, a client-centered money management firm with a financial planning platform that merged with Keel Point, LLC in 2015 (see www.keelpoint.com)
2003 – 2013	Quantitative Analyst, Blue Creek Investment Partners, LLC
1997 – 2007	SouthTrust Professor of Financial Management University of Alabama
2000 – 2003	Senior Quantitative Analyst, TCF, LP An energy risk management consulting firm
1997 – 2003	Senior Advisor Porter, White & Co., Inc., an investment banking firm
1991 – 2000	President, Financial Risk Management, Inc., Financial derivatives and market risk management consulting firm
1996 – 1997	Board of Visitors Research Fellow in Finance University of Alabama
1992 – 1997	Associate Professor of Finance University of Alabama
1989 – 1992	Assistant Professor of Finance University of Alabama

1986 – 1991 Software developer specializing in financial risk management tasks

1986 – 1989 Assistant Professor of Finance

Auburn University

BOOKS:

- 7. An Introduction to Derivatives and Risk Management, 10th Edition, co-authored with Don Chance, (Mason, OH, Thomson South-Western, 2015), 583 pages, ISBN-13: 978-1-305-10496-9.
- 6. Building Financial Risk Management Applications with C++, CreateSpace Independent Publishing Platform, 370 pages, January 2013. ISBN-13: 978-1478350750.
- 5. An Introduction to Derivatives and Risk Management, 9th Edition, co-authored with Don Chance, (Mason, OH, Thomson South-Western, 2013), 667 pages, ISBN-13: 978-1-133-19019-6.
- 4. *An Introduction to Derivatives and Risk Management*, 8th Edition, co-authored with Don Chance, (Mason, OH, Thomson South-Western, 2010), 652 pages, ISBN-13: 978-0-324-60120-6.
- 3. *An Introduction to Derivatives and Risk Management*, 7th Edition, co-authored with Don Chance, (Mason, OH, Thomson South-Western, 2007), 653 pages, ISBN 0-324-32139-2.
- 2. Building Financial Derivatives Applications with C++, ISBN 1-56720-287-X (HG 6024.A3 B76) (Westport, CT: Quorum Books, 2000). Published in March 2000. Ranked #5 in July 2000 on Amazon.com's "Derivatives Securities" bestselling list (180 books overall). Reviewed in Risk (September 2000), 111 (by Rich Tanenbaum, Savvysoft). Reviewed in Journal of Finance (Vol. 58, No. 1), (February 2003), 469-473 (by Gregory F. Robel, Phantan Works, The Boeing Company).
- 1. Interest Rate Risk Management Using Futures, Options, Swaps and Other Derivative Securities to Control Interest Rate Risk, co-authored with Benton Gup, January 1993, 275 pages, ISBN 1-55738-370-7.

BOOK CHAPTERS, MONOGRAPHS, AND READINGS:

6. "Valuation of Contingent Claims," CFA® Examination Reading, Level II, CFA® Institute. Co-authored with David Gentle, 2016.

- 5. "Pricing and Valuing Forward Commitments," CFA® Examination Reading, Level II, CFA® Institute. Co-authored with Barbara Valbussi, 2016.
- 4. "Optionality and the New Basel Capital Accord," in Benton Gup, eds., *The New Basel Capital Accord*, Mason, OH, South-Western, (2004) 285-304.
- 3. Chapter 5, "New Techniques in Energy Options," in Peter C. Fusaro, *Energy Convergence The Beginning of the Multi-Commodity Market*, (New York, NY: John Wiley & Sons, Inc., 2002), 51-88. ISBN 0-471-21946-0 (HG6024 .A3 E528 2002).
- 2. Interest Rate Modeling and the Risk Premia in Interest Rate Swaps, a research monograph commissioned by The Research Foundation of the Institute of Chartered Financial Analysts. Published in 1997, 40 pages, ISBN 0-943205-38-7.
- 1. "The Effects of Non-Parallel Shifts in the Yield Curve on Bank Capital Adequacy," Chapter 33, Tony Cornyn and Robert A. Klein, eds., *Controlling and Managing Interest Rate Risk*, (Prentice-Hall, 1997), 591-603. Co-authored with Benton Gup. Accepted for publication in March 1996.

ARTICLES:

- 77. "An Enterprise Perspective on Performance Attribution: Introducing the Keel Model," *Journal of Risk*, forthcoming. Accepted in November 2016.
- 76. "A General Option Valuation Approach to Discount for Lack of Marketability," *Business Valuation Review*, forthcoming. Accepted in November 2016.
- 75. "Smooth Volatility Shifts and Spillovers in U.S. Crude Oil and Corn Futures Markets," *Journal of Empirical Finance*, forthcoming. Co-authored with Walter Enders and Pavel Teterin. Accepted in May 2016.
- 74. "Bond Portfolio Holding Period Return Decomposition," *Journal of Investing*, forthcoming. Co-authored with Kate Upton. Accepted in February 2016.
- 73. "A Comparison of the Information in the LIBOR and CMT Term Structures of Interest Rates," *Journal of Banking and Finance*, Vol. 54 (2015), 239-253. Co-authored with Brandon N. Cline and Walt Enders. Accepted in January 2015.
- 72. "Spread Options and Risk Management: Lognormal Versus Normal Distribution Assumption," *Financial Services Review*, Vol. 24, No. 1, 2015, 15-35. Co-authored with Brandon N. Cline. Accepted in December 2014.

- 71. "Some Subtle Relationships and Results in Option Pricing," *Journal of Applied Finance*, Issue 1 (2014), 94-116. Co-authored with Don Chance. Accepted in July 2013.
- 70. "Growth/Value, Market-Cap, and Momentum," *Journal of Investing*, Vol. 22, No. 1, (Spring 2014), 33-42. Co-authored with Jun Wang, Xing Lu and Hunter M. Holzhauer. Accepted in February 2013.
- 69. "Samuelson Hypothesis and Carry Arbitrage," *Journal of Derivatives*, Vol. 20, No. 2 (Winter 2013), 37-65. Accepted in October 2012.
- 68. "Private Information and the Exercise of Executive Stock Options," *Financial Management*, Vol. 41, No. 3, (Fall 2012), 733-764. Co-authored with Don M. Chance and Brandon N. Cline. Accepted in May 2012.
- 67. "Stock Buyback Programs and Stock Option Plans: A Theoretical Framework," *Advances in Quantitative Analysis of Finance and Accounting*, Volume 11, Chapter 1 (December 2013), 1-28. Co-authored with Brandon N. Cline. Accepted in March 2012.
- 66. "Issues and Challenges in Structured Municipal Debt: A Case Study and Call for Research," *Journal of Applied Finance* No. 1, 2012, 19-24. Co-authored with Alexander Arapoglou and Tim Schaefer. Accepted in January 2012.
- 65. "Morphable Ownership Extended: The Impact of Naked Shorting on Voting and Control," *Academy of Economics and Finance Journal*, forthcoming. Co-authored with Clay Moffett and Jin Q. Jeon. Accepted in October 2011.
- 64. "Information in the U. S. Treasury Term Structure of Interest Rates," *Financial Review* (May 2012) Vol. 47, No. 2, 247-272. Co-authored with Brandon N. Cline and Walter Enders. Accepted in July 2011.
- 63. "The Efficacy of Regulation SHO in Resolving Naked Shorts," *Journal of Financial Regulation and Compliance* Vol. 20, No. 1, 2012, 72-98. Co-authored with Clay Moffett and Jin Q. Jeon. Accepted in July 2011.
- 62. "Agents with Principles: Reducing Risk Through Ethics Education," *Review of Business Research* Vol. 11, No. 4, 2011, 76-84. Co-authored with Christopher M. Brockman and D. Michael Long. Accepted in February 2011.
- 61. "The Life Cycle View of Enterprise Risk Management: The Case of Southwest Airlines Jet Fuel Hedging," *Journal of Financial Education* Vol. 38 (Fall/Winter) 2012, 11-23. Accepted in January 2011.

- 60. "The Naked Truth: Examining Prevailing Practices in Short-Sales and the Resultant Voter Disenfranchisement," *Journal of Trading* (Summer 2008), 46-59. Co-authored with Clay Moffett. Accepted in April 2008.
- 59. "A Moments Approach to Option Valuation Models," *Applied Mathematical Sciences* Vol. 2, No. 23, 2008, 1101-1114. Accepted in December 2007.
- 58. "Real-time Assessment of Value-at-Risk and Volatility Accuracy," *Nonlinear Analysis: Real World Applications* Vol. 8, No. 1 (February 2007), 323-336. Co-authored with Joe Sullivan and Zachary Stoumbos. Accepted in August 2005. Listed on SSRN's Top Ten download list for "EIBFIN: Risk Assessment" (#5) and "EIB: Environmental Impacts Related to Finance," (#7) December, 2006.
- 57. "Return on Ethics," *The National Accounting Journal* Vol. 8, No. 2, (Fall/Winter 2006), 25-30. Co-authored with Christopher M. Brockman and John G. Fulmer, Jr. Accepted for publication in August 2005.
- 56. "A Stochastic Electricity Load Model," *Electric Power Systems Research*, Vol. 76, Issues 6-7, (April 2006), 500-508. Co-authored with N. S. Sisworahardjo, A. A. El-Keib, J Valenzuela, J. Choi, and I. El-Ajtal. Accepted in February 2005.
- 55. "An Analysis of Single-Stock Futures Trading in the U.S.," *Financial Services Review*, Vol. 14, No. 2, (Summer 2005), 85-95. Co-authored with Travis Jones. Accepted in December 2004.
- 54. "Surplus Optimization Approach to Managing Municipal Debt," *Public Finance Review*, Vol. 33, No. 2 (March 2005), 236-254. Accepted in October 2004.
- 53. "The Impact of Corporate Structure on the Value of Banks: A Theoretical Approach," *Journal of International Banking Regulation*, Vol. 6, No. 1 (October 2004), 91-99. Coauthored with Benton Gup. Accepted in June 2004.
- 52. "History of the Forecasters: An Assessment of the Semi-Annual U. S. Treasury Bond Yield Forecast Survey as Reported in *The Wall Street Journal*," *Journal of Portfolio Management*, Vol. 31, No. 1, (Fall 2004), 113-118. Co-authored with Brian Gray. Accepted in January 2004. Listed on SSRN's Top Ten download list for "Macroeconomic Recent Hits" and "Risk Management Recent Hits," January, 2004.
- 51. "Embedded Options in Enhanced Certificates of Deposit," *Financial Services Review*, Vol. 13, No. 1 (Spring 2004), 19-33. Co-authored with Brandon Cline. Accepted in December 2003.

- 50. "The Cost of Tax Policy Uncertainty: Evidence From the Municipal Swap Market," *Journal of Fixed Income*, Vol. 12, No. 3 (December 2002), 71-87. Accepted in August 2002. Item of Interest in *The CFA Digest* (August 2003). Vol. 33, No. 3, pp. 94.
- 49. "Exploration of the Role of Expectations in Foreign Exchange Risk Management," *Journal of Multinational Financial Management*, Vol. 12, No. 2 (2002), 171-189. Co-authored with Vivek Bhargava. Accepted in January 2001.
- 48. "Implied Volatilities, Stochastic Interest Rates, and Currency Futures Options Valuation: An Empirical Investigation," *European Journal of Finance*, Vol. 7, No. 3, 2001, 231-246. Co-authored with D. K. Malhotra and Vivek Bhargava. Accepted in May 2000.
- 47. "Embedded Options Impact on Interest Rate Risk and Capital Adequacy," *The Journal of Applied Business Research*, 15(4), 1999, 11-20. Co-authored with Benton Gup. Accepted in September 1999.
- 46. "Hedging Currency Risk Using Futures," *Research in Finance* 18 (2001), 221-243. Co-authored with Vivek Bhargava. Accepted in July 1999.
- 45. "Municipal Bonds: A Contingent Claims Perspective," *Financial Services Review* 8(2), (1999), 71-86. Accepted in June 1999. Abstracted in *The CFA Digest* (Spring 2000). Vol. 30, No. 2, pp. 26-28.
- 44. "Managing College Tuition Inflation Using a Surplus Framework Methodology," *Financial Services Review* 7(4), (1998), 257-272. Co-authored with Judson W. Russell. Accepted in May 1999.
- 43. "London Inter-bank Offer Rate (LIBOR) versus Treasury Rate: Evidences from the Parsimonious Term Structure Model," *Journal of Fixed Income*, 9 (1) (June 1999), 71-83. Co-authored with David Yan. Accepted in March 1999.
- 42. "Pricing Credit Default Swaps and the Implied Default Probability," *Derivatives Quarterly* 5(2), (Winter 1998), 34-41. Co-authored with David Yan. Accepted in November 1998.
- 41. "To Hedge or Not To Hedge: For Interest Rate Risk, That is the Question," *Trust & Investments* (January/February 1999), 46-51. Co-authored with Benton E. Gup. Accepted in November 1998.
- 40. "A Life-Cycle View of the Electricity Futures Market," *Journal of Energy, Finance and Development*, 3(2) 1998, 171-183. Co-authored with A. A. El-Keib. Accepted in June 1998.

- 39. "The CFA: Adding Value to the Market," *Financial Analysts Journal*, 54(6), 81-85. Co-authored with Chris Brockman. Accepted in June 1998.
- 38. "With Municipal Refundings, 'Savings' Can Be a Misnomer," *The Bond Buyer*, Monday, June 8, 1998 edition, 12. Accepted in June 1998.
- 37. "Questions About U.S. Tax Policy Can Be Taxing for State, Local Governments," *The Bond Buyer*, Monday, April 13, 1998 edition, (Vol. 333), 31. Accepted in April 1998.
- 36. "Approaches to Valuation Illustrated with Interest Rate Swaps," *Derivatives Quarterly*, Vol. 4, No. 3, (Spring 1998), 51-62. Accepted in March 1998.
- 35. "Optimal Currency Composition of External Debt Via Surplus Optimization: Case for Less Developed Countries," *Emerging Markets Quarterly*, 1 (4), (Winter, 1998), 63-76. Co-authored with Pradeep Kumar. Accepted in October, 1997.
- 34. "Average Inter-Security Correlation Coefficients: Implications for the Timing of Hedging Decisions," *Advances in Futures and Options Research*, 1997, 129-156. Coauthored with John Clark. Accepted in July 1996.
- 33. "Financial Risk: An Alternative Biblical Perspective," *Journal of Biblical Integration in Business* Fall 1996. Accepted in April 1996.
- 32. "Computing the Yields on Enhanced CDs," *Financial Services Review* (1996) Vol. 5, No. 1, 31-42.
- 31. "Don't Copy Competition: Lead With New Products," *Bank Marketing* (May 1996) Vol. 28.
- No. 5, 13-17. Co-authored with Darin White. Accepted in March 1996.
- 30. "Pricing of the Option to Delay the Purchase of Extended Service Contracts," *Journal of Retailing and Consumer Services* (1996) Vol. 3, No. 4, 225-231. Co-authored with Darin W. White.
- 29. "A Lattice Approach to Interest Rate Spread Options." *Journal of Financial Engineering*, (September 1995), Vol. 4, No. 3, 281-296.
- 28. "The Impact of Sampling Errors on the Choice of Portfolio Efficiency Analysis Rules with Borrowing and Lending of a Riskless Asset." *Financial Review*, (November 1995), Vol. 30, No. 4, 663-683. Co-authored with Yoram Kroll.
- 27. "Derivatives: Beyond the Rhetoric" *Risk Management* (Boardroom Edition), (July 1995), 37-40.

- 26. "Are Jumps in Stock Returns Diversifiable? Evidence and Implications for Option Pricing." *Journal of Financial and Quantitative Analysis*, Vol. 29, No. 4, (December 1994), 609-631. Co-authored with Myung J. Kim and Young Ho Oh.
- 25. "Components of the Bid-Ask Spread of Default-Risky Interest Rate Swaps." *Advances in Futures and Options Research*, Vol. 7, 1994, 237-249. Co-authored with D. K. Malhotra.
- 24. "Are Term Premiums Risk Premiums?" *Advances of Quantitative Analysis of Finance and Accounting*, Vol. 3, Part A, 1995, 131-146. Co-authored with Haim Levy and Miles Livingston.
- 23. "The Pricing of Index Options When the Underlying Assets Each Follow a Lognormal Diffusion." *Advances in Futures and Options Research*, Vol. 7, 1994, 65-85. Co-authored with Jon Corson and Jimmy Wales.
- 22. "The Unbiased Expectations Hypothesis and Error-Learning." *Advances in Quantitative Analysis of Finance and Accounting*, 2 (Part A) 1993, 105-114. Coauthored with Myung J. Kim and Miles Livingston.
- 21. "The Difference Between the Local and Unbiased Expectations Hypothesis." *Review of Quantitative Finance and Accounting*, 2 (4) 1992, 377-389. Co-authored with Miles Livingston.
- 20. "Active Asset Allocation Decisions of Professional Equity Managers." *Financial Services Review*, 2 (1) 1992/1993, 21-40. Co-authored with Robert Radcliffe.
- 19. "Multivariate Contingent Claims Analysis with Cross-Currency Options as an Illustration," *Journal of Financial Engineering*, 1 (2) (September 1992), 196-218.
- 18. "Portfolio Insurance: Does It Pay?," *Advances in Futures and Options Research*, 6 (1993), 329-353. Co-authored with Haim Levy.
- 17. "Relative Impact of Duration and Convexity on Bond Price Changes," *Financial Practice and Education*, 2 (1) (Spring/Summer 1992), 93-99. Co-authored with Miles Livingston.
- 16. "Using Duration and Convexity in the Analysis of Callable, Convertible Bonds," *Financial Analysts Journal*, 48 (4) (July/August 1992), 74-76. Co-authored with Bill Attinger.
- 15. "An N Stage, Fractional Period, Quarterly Dividend Discount Model," *Financial Review*, 25 (November 1990), 651-657. Co-authored with Billy Helms.

- 14. "Portfolio Insurance for Foreign Exchange Risk Management," *Global Finance Journal*, 2 (1/2) 1991, 55-69. Co-authored with Jeff Madura and Alan Tucker.
- 13. "The Local Versus the Unbiased Expectations Hypothesis with Discrete Compounding," *Journal of Business, Finance and Accounting*, 19 (6) (November 1992), 877-888. Co-authored with Miles Livingston.
- 12. "Analyzing Portfolios with Derivative Assets: A Stochastic Dominance Approach Using Numerical Integration," *Journal of Futures Markets* 11 (August 1991), pp. 411-440.
- 11. "The Use of Stochastic Dominance to Screen Strategies for Hedging Interest Rate Risk at Financial Institutions: A Study of Caps, Floors, Collars and Swaps," *8th Symposium on Cash, Treasury, and Working Capital Management*, October 21, 1992. Co-authored with Benton Gup.
- 10. "A Note on the Variance of Spot Interest Rates," *Journal of Banking and Finance*, 14 (March 1990), 215-225. Co-authored with Miles Livingston.
- 9. "Options on Stocks versus Index Options: The Portfolio Effect," *Advances in Futures and Options Research* 4 (March 1990), 111-124. Co-authored with William P. Lloyd.
- 8. "A Closed-Form Equation for Bond Convexity," *Financial Analysts Journal*, 45 (November 1989), 78-79. Co-authored with Miles Livingston.
- 7. "Investment Decision Making with Derivative Securities," *The Financial Review* 24 (November 1989), 511-527.
- 6. "An Empirical Analysis of Term Premiums Using Stochastic Dominance," *Journal of Banking and Finance* 13 (May 1989), 245-260. Co-authored with Haim Levy.
- 5. "Investment Decision Making with Index Futures and Index Futures Options," *Journal of Futures Markets* 9 (April 1989), 143-162.
- 4. "The Coupon Effect on Term Premiums," *Journal of Financial Research*, 12 (Spring 1989), 15-22. Co-authored with Haim Levy and Miles Livingston.
- 3. "Evaluating the Performance of Stock Portfolios with Index Futures Contracts," *Journal of Futures Markets* 8 (February, 1988), 33-46. Co-authored with John Hand.
- 2. "Using Stochastic Dominance in Evaluating the Performance of Portfolios with Options," *Financial Analysts Journal* 42 (March 1987), 79-82. Co-authored with Haim Levy and Jim Yoder.

1. "Financial Break-Even Analysis and the Value of the Firm," *Financial Management* 15 (September 1986), 22-26. Co-authored with Haim Levy.

WORK-IN-PROGRESS AND WORKING PAPERS:

"Option Valuation Based on Arithmetic Brownian Motion: Justification and Implementation Issues," co-authored with Joshua A. Brooks. Currently under revise and resubmit at the *Journal of Financial Research*.

"Trading Restrictions, Exchange Traded Funds, and Regulatory Arbitrage," co-authored with Rusty Yerkes and Robert McLeod. Currently under revise and resubmit at *The Journal of Index Investing*.

"Bond Funds ABCs: Alpha, Benchmarking and Composition of Risk," co-authored with Kate Upton. Currently not under review.

"Ethics in Academic Finance: A Normative Apology." Currently not under review.

"Derivatives and Governance," co-authored with Shawn Mobbs and Troy Pollard. Currently not under review.

"A Correlated Two Factor, Mean Reverting Model." Currently not under review.

"A Decomposition of Price Momentum." Currently not under review.

"Executive Stock Option Exercise, Insider Trading, and Abnormal Stock Returns: Firm Characteristics." Co-authored with Brandon N. Cline and Don Chance. Currently not under review.

NOTABLE WORKING PAPERS:

- 4. "A Distributional Approach for Single Factor Option Valuation Models." Listed on SSRN's Top Ten download list for "Derivatives Recent Hits," January 24, 2003.
- 3. "Current Assessment of the Accuracy of Value at Risk and Trading Purity for Power." Listed on SSRN's Top Ten downloads for "Risk Management Recent Hits," February 3, 2003.
- 2. "Efficiency Analysis With Derivative Assets: An Analytical Approach" Working Paper No. 2, Chicago Board of Trade Educational Research Foundation, (April 1990).

1. "Empirical Analyses of the Term Structure of Interest Rates," electronically published doctoral dissertation, University of Florida, May 1986.

INVITED MANUSCRIPT REVIEWING:

Advances in Futures and Options Research.

Christian Scholars Review

Energy Journal

Engineering Economist

Financial Management

Financial Review

Financial Practice and Education

Financial Services Review

Global Finance Journal

International Review of Economics and Finance

Journal of Credit Risk

Journal of Economics and Business

Journal of Economics and Finance

Journal of Empirical Finance

Journal of Financial Education

Journal of Financial Engineering

Journal of Financial and Quantitative Analysis

Journal of Financial Research

Journal of Futures Markets

Journal of Investing

Management Sciences

Public Budgeting & Finance

Quantitative Finance (Institute of Physics)

Quarterly Review of Economics and Finance

Review of Futures Markets

Review of Quantitative Analysis and Accounting

TEACHING:

Jim Nabors Teaching Excellence Award, Presented by the Culverhouse College of Commerce, February 6, 2015.

Outstanding Commitment to Teaching Award, Presented by the National Alumni Association of The University of Alabama, 2014

Appreciation Award, Alabama Finance Association, May 1999.

Robert L. Hatcher, III Award for Outstanding Finance Faculty Member, April 1993.

Investment management training for FactSet, 2007, 2008.

Executive training in derivatives provided to Korea Development Bank, Alabama Power, Ameren Energy, Aquila, Thotwave, and Southern Wholesale Energy.

Educational software developer for college textbooks. Completed software packages include:

- 1. Richard Brealey and Stewart Myers, <u>Principles of Corporate Finance</u> (1988).
- 2. Charles P. Jones Investments (2nd (1989) and 3rd (1990) Editions).
- 3. Robert Radcliffe Investments (1990).
- 4. Gary Smith Investments (1990).
- 5. Ekelund and Tollison Economics (1991).

Ph.D. Classes designed and/or taught:

Dissertation Research, FI 699 (taught when needed since 1989)

Ph.D. Seminar in Financial Derivatives, FI 597 (designed and developed course, taught in Fall 2013)

Ph.D. Seminar In Investments, FI 614 (taught selectively 1989-2003)

Continuous Time Finance, FI 698 (designed and developed course, taught twice in 1991)

MSF/MBA Classes designed and/or taught:

Ethics and Standards of Professional Conduct, FI 597 (designed and developed course, taught since Fall 2011)

Financial Engineering, FI 519 (taught in 1991-1992, 1995-1998, 2004-2009, 2011-present)

Advanced Financial Engineering, FI 520 (designed and developed course, taught since 1990, and published book in 2000 and in 2013)

Investments (MBA Class), FI 514 (taught in 1990, 1997, and 1998)

Energy Risk Management, FI 497/597 (designed and developed course, taught twice in 2001 and 2003)

Undergraduate Classes designed and/or taught:

Financial Engineering, FI 419 (taught since 1989)

Advanced Investments, FI 415 (taught 2001, 2003, and 2012 – value investing focus)

Financial Applications in C++, FI 491 (taught in 1994)

Investments, FI 414 (taught selectively 1991-1994)

DOCTORAL DISSERTATIONS CHAIRED:

Richard Arnatt, Finance, Current

Jun Wang, Finance, 2010

Clay Moffett, Finance, 2008

Bin Huangfu, Finance, 2007

Brandon Cline, Finance, 2005

Ridha Yasser, Engineering, Co-Chaired with Rahim El-Keib, 2005

Nur S. Sisworahardjo, Engineering, Co-Chaired with Rahim El-Keib, 2004

Chris Cain, Finance, 2004

Wei Feng, Economics, 2002

David Yan, Finance, 2000

Judson Russell, Finance, 1998

John Clark, Finance, 1997

Pradeep Kumar, Co-chair with Dan Arce, 1997

Mahnsool Kim, Finance, 1997

Vivek Bhargava, Finance, 1996

Pankaj Aggrawal, Finance, 1996

DOCTORAL DISSERTATION COMMITTEE MEMBER:

Zhihan Wei, Mathematics, 2018 (?)

Christopher Whaley, Economics, 2016

William Hankins, Economics, 2014

Jared Levant, Economics, 2014

Paul M. Jones, Economics, 2014

Rusty Yerkes, Finance, 2013

Razvan Pascalau, Economics, 2008

Melissa Woodley, Finance, 2007

Travis Jones, Finance, 2005

Doowoo Nam, Finance, 2001

Tewhahn Hahn, Finance, 2000

Frank Michello, Finance, 1999

Jan Barton, Accounting, 1998

Pam Turner, Finance, 1998

Bernd Rohde, Economics, 1997

Rand Martin, Finance, 1994

Kiseok Oh, Finance, 1994

Thawatchai Jittrapanun, Finance, 1994

D. K. Malhotra, Finance, 1993

PROFESSIONAL PROGRAM INVOLVEMENT:

Southern Finance Association. "An Enterprise Perspective of Performance Attribution: Introducing the Keel Model." Sandestin, FL. November 2016.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. Las Vegas, NV. October 2016.

Eastern Finance Association. "Smooth Volatility Shifts and Spillovers in U.S. Crude Oil and Corn Futures Markets." (Co-authored with Pavel Teterin and Walt Enders.) Baltimore, MD. April 2016.

Financial Management Association. "An Enterprise Perspective of Performance Attribution." Orlando, FL. October 2015.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. Orlando, FL. October 2015.

Southern Finance Association. "Sector Momentum." Co-authored with Hunter Matthew Holzhauer, Xing Lu, and Jun Wang. (Presented by Jun Wang.) Key West, FL. November 2014.

Financial Management Association. "A General Option Valuation Approach to Discount for Lack of Marketability." Nashville, TN. October 2014.

Financial Management Association. "Another Look at Arithmetic Brownian Motion." Coauthored with Joshua A. Brooks. (Presented by Joshua A. Brooks.) Nashville, TN. October 2014.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. Nashville, TN. October 2014.

Southern Finance Association. "Another Look at Arithmetic Brownian Motion." Coauthored with Joshua A. Brooks. Fajardo, Puerto Rico. November 2013.

Financial Management Association. "Ethics and Finance." Panel Chair and Session Organizer. Chicago, IL. October 2013.

Financial Management Association. "A Comparison of the Information in the LIBOR and CMT Term Structures of Interest Rates." Co-authored with Brandon N. Cline and Walter Enders. Chicago, IL. October 2013.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. Chicago, IL. October 2013.

Academy of Economics and Finance. Invited keynote luncheon speaker, "Ethics in Academic Finance: A Normative Apology." Mobile, AL. February 2013.

Southern Finance Association. "Bond Holding Period Return Decomposition." Charleston, SC. November 2012.

Financial Management Association. "Samuelson Hypothesis and Carry Arbitrage." Atlanta, GA. October 2012.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. Atlanta, GA. October 2012.

Southern Finance Association. "Samuelson Hypothesis and Carry Arbitrage." Key West, FL. November 2011. Winner of the Outstanding Empirical Finance Paper Award sponsored by Wharton Research Data Services.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. Denver, CO. October 2011.

Financial Management Association. "Issues and Challenges in Structured Municipal Debt: A Case Study and Call for Research." Panel Chair. Denver, CO. October 2011.

Southern Finance Association. "The Efficacy of Regulation SHO in Resolving Naked Shorts." Co-authored with Clay Moffett. Ashville, NC. November 2010.

Financial Management Association. "Future of Specialty Masters Programs in Finance." Panel Chair and Session Organizer. New York, NY. October 2010.

Financial Management Association. "Growth/Value, Market-Cap, and Momentum." New York, NY. Co-authored with Jun Wang. New York, NY. October 2010.

Financial Management Association. "The Efficacy of Regulation SHO in Resolving Naked Shorts." Co-authored with Clay Moffett. New York, NY. October 2010.

Financial Management Association. "Advances in Derivatives Valuation and Volatility Estimation," Session 152, Session Chair. Reno, NV. October 2009.

Financial Management Association. "Theoretical Boundaries of the Impact of Liquidity on Bond Prices." Co-authored with Chris Cain. Gaylord, TX. October 2008.

Southern Finance Association. "The Efficacy of Regulation SHO in Resolving Stock Market Fails-to-Deliver." Co-authored with Clay Moffett. Charleston, SC. November 2007.

Financial Management Association. "Executive Stock Option Exercise, Insider Trading, and Abnormal Stock Returns: Firm Characteristics." Co-authored with Brandon N. Cline and Don Chance. Salt Lake City, UT. October 2007

Eastern Finance Association. "Executive Stock Option Exercise, Insider Trading, and Abnormal Stock Returns: Firm Characteristics" (with Don Chance and Robert Brooks). New Orleans, LA. April 2007.

Southern Finance Association. "Information in the Term Structure of LIBOR Interest Rates." (with Brandon Cline). Destin, FL. November 2006.

Financial Management Association. "Executive Stock Option Exercise, Insider Trading, and Abnormal Stock Returns: Firm Characteristics" (with Don Chance and Brandon Cline) Salt Lake City, UT. October 2006

Midwest Finance Association. "Executive Stock Option Exercise, Insider Trading and Abnormal Stock Returns: Firm Characteristics" (with Brandon Cline), Chicago, IL. March 2006.

Southern Finance Association. "Executive Stock Option Exercise, Insider Trading, and Abnormal Stock Returns" (with Don Chance and Brandon Cline), November Key West, FL. 2005.

Financial Management Association. "Executive Stock Option Exercise, Insider Trading, and Abnormal Stock Returns" (with Don Chance and Brandon Cline), Chicago, IL. October, 2005.

Midwest Financial Association. "The Term Structure of LIBOR Interest Rates." (with Brandon Cline) Milwaukee, WI. March, 2005.

Southern Finance Association. "Quantifying Option Risk Premiums and the Role of Expectations" and "Risk Management Issues of Basis Options" (with Brandon Cline) Naples, FL, November, 2004.

Financial Management Association. "The Term Structure of LIBOR Interest Rates." (with Brandon Cline) New Orleans, LA. October 2004.

Southern Finance Association. "Optionality and the New Basel Capital Accord." (with Benton Gup) Charleston, SC, December 4, 2003.

Energy Credit Risk 2002. "Structured Credit Products and their Use in the Mitigation of Credit Risk." Houston, TX. December 2002.

Energy Risktech 2002. Structured Risk System Assessment: An Essential Component of Enterprise Risk Management." Houston, TX. November 2002.

Southern Finance Association. "Amending the Theory of the Firm: The Value of Limited Liability." Key West, FL. November 2002.

Financial Management Association. "A Distribution Approach for Single Factor Option Valuation Models" and "Assessing the Accuracy of Value-at-Risk." San Antonio, TX. October 2002.

Energy and Power Risk Management 2002. "Validating VaR and Panel Debate: Approaches to Valuing Energy Derivatives." Houston, TX. May 2002.

Interest Rate Modelling. "Validating Risk Systems." New York, NY. May 2002.

Enterprise-Wide Risk Management for US Power Companies. "Implementing Issues for Energy Options." Houston, TX. October 2001.

Financial Management Association. "Empirical and Theoretical Studies On Credit Spreads." Toronto, Canada. October 2001.

Southern Finance Association. "Value at Risk Applied to Natural Gas Forward Contracts." Destin, FL. November 2001.

Math Week. "Partial Hedging." New York, NY. November 2001.

Academy of Financial Services. "Managing Prepaid College Tuition Plans Using a Surplus Methodology Framework." Orlando, FL. October 1999.

Financial Management Association. "The Market Price of Tax Policy Uncertainty: Evidence From the Municipal Swap Market." Orlando, FL. October 1999.

Financial Management Association. "Corporate Debt Policy: The Cost of Borrowing." Orlando, FL. October 1999.

Large Engineering Systems Conference. "Risk Management in Deregulated Electricity Markets," Halifax, Nova Scotia, Canada. June 1999. Co-authored with R. Yasser, N. Sisworahardjo, and A. A. El-Keib. Also appeared in Proceedings of LESCOPE.

Southwestern Finance Association. "Pricing Credit Default Swaps and the Implied Default Probability." Houston, TX. March 1999.

Academy of Economics and Finance. "Pricing Credit Default Swaps and the Implied Default Probability." Little Rock, AR. March 1999.

Compass Bank Investments Seminar. "To Hedge or Not to Hedge." Destin, FL. June 1999.

Midwest Finance Association. "Credit Default Risk." Nashville, TN. March 1999.

Academy of Financial Services. "Approaches to Valuation." Chicago, IL. October 1998.

Southern Finance Association. "Interpreting the Information in the Municipal Swap Curve." Marco Island, FL. November 1998.

European Financial Management Association. "Corporate Debt Policy: The Cost of Borrowing." Lisbon, Portugal. June 25-27, 1998.

Eastern Finance Association. "The Valuation of Futures Contracts on U.S. Treasury Inflation-Indexed Notes." Williamsburg, VA. April 22-25, 1998.

Midwest Finance Association. "Credit Default Risk" Nashville, TN. March 1998.

Eastern Finance Association. "A Review of Interest Rate Contingent Claims Pricing Models: A Tutorial." Panama City, Florida. April 19, 1997.

Eastern Finance Association. "Valuing Currency Futures Options." Panama City, Florida. April 17, 1997.

Conference on Computational Intelligence and Financial Engineering. "Term Structure Modeling." New York, NY. March 24, 1996

Southwestern Finance Association. "An Empirical Investigation of Alternative Techniques of Hedging Currency Risk with Futures Contracts." San Antonio, Texas. March 8, 1996.

International Association of Financial Engineers. "Computing the Yields of Exotic CDs." New York, NY. November 9, 1995.

Financial Management Association. "The Effect of Nonparallel Shifts in Yield Curves on Bank Capital Adequacy: A Study of Asset Options and Structured Liabilities." New York, NY. October 21, 1995.

Academy of Financial Services. "The Valuation of Mortgage-Backed Securities Using a Stochastic Representation of the Term Structure." New York, NY. October 18, 1995.

Southern Finance Association. "The Predictive Power of Implied Correlation Coefficients." Charleston, SC. December 3, 1994.

International Association of Financial Engineers. "A Lattice Approach to Interest Rate Spread Options." New York, NY. December 1, 1994.

Financial Management Association. "Embedded Derivatives, Impact on Interest Rate Risk." St. Louis, MO. October 12, 1994.

Eastern Finance Association. "Hedging Currency Risk Using Futures and Options." Boston, MA. March 1, 1994.

Financial Management Association. "Components of the Bid-Asked Spread of Default-Risky Interest Rate Swaps." Toronto, Canada. October 13, 1993.

Southern Finance Association. "Multivariate Contingent Claims Analysis with Cross-Currency Options as Illustration." Jacksonville, FL. November 19, 1992.

International Symposium on Cash, Treasury and Working Capital Management. "Hedging Interest Rate Risk at Financial Institutions with Caps, Floors, Collars & Swaps: An Application of Stochastic Dominance." With Benton Gup San Francisco, CA. October 21, 1992.

Eastern Finance Association. "Pricing Index Options." Tampa, FL. April 23, 1992.

Southern Finance Association. "Pricing Index Options." Orlando, FL. November 1, 1991.

Financial Management Association. "Pricing Index Options." Chicago, IL. October 1, 1991.

Southern Finance Association. "Portfolio Insurance: Does It Pay?" Savannah, Georgia. November 11, 1990.

Financial Management Association. "Portfolio Insurance: Does It Pay?" Orlando, Florida. October 10, 1990.

Eastern Finance Association. "Portfolio Insurance: Does It Pay?" Hot Springs, VA. April 5, 1990.

Southern Finance Association. "The Coupon Effect on Term Premiums." Washington, D.C. November 1, 1988.

Financial Management Association. "Investment Decision Making with Derivative Assets." New Orleans, LA. October 1, 1988.

Financial Management Association. "An Empirical Analysis of Term Premiums Using Stochastic Dominance." New York, NY. October 1, 1987.

Western Finance Association. "The Usefulness of Portfolio Selection Procedures under Estimation Risk." San Diego, CA. June 1, 1987.

GRANTS AND AWARDS:

"Samuelson Hypothesis and Carry Arbitrage." Winner of the Outstanding Empirical Finance Paper Award, Southern Finance Association, November 2011, sponsored by Wharton Research Data Services.

Chicago Board of Trade Competitive Paper Award, Southwestern Finance Association meeting, March 1997. Paper Title: "A Comparison of Symmetric and Asymmetric Hedging Strategies." Co-authored with Vivek Bhargava.

Appointed as the Board of Visitors Research Fellow in Finance, College of Commerce and Business Administration, The University of Alabama, August 1996 to 1997.

The Research Foundation of The Institute of Chartered Financial Analysts, Project Title: "Yield Curves, Forward Rates, and the Valuation of Interest Rate Swaps." 1995-1996.

Chicago Board of Trade Competitive Paper Award, Southern Finance Association meeting, November 1992. Paper Title: "Multivariate Contingent Claims Analysis with Cross-Currency Options as an Illustration."

Chicago Board of Trade Educational Research Foundation, "Investment Decision Making with Derivative Securities," 1987.

Chicago Board of Trade Educational Research Foundation, "Efficiency Analysis with Derivative Assets: An Analytical Approach," 1989.

College of Business, Auburn University, Summer Research Grants 1987 and 1988.

OTHER PROFESSIONAL ACTIVITIES:

Associate Editor, *Journal of Financial Research*, January 2011 – present.

Associate Editor, *Financial Services Review*, August 2005 – present.

Invited Testifying Witness, United States House of Representatives, Committee on Financial Services, Subcommittee on Capital Markets and Government Sponsored Enterprises, *The Impact of the Dodd-Frank Act on Municipal Finance*, July 20, 2012.

Webcast and written testimony available at http://financialservices.house.gov/Calendar/EventSingle.aspx?EventID=303098.

Panelist, U.S. Securities and Exchange Commission Municipal Finance Field Hearing, July 29, 2011. Served on two panels: Distressed Communities and Derivatives Use in Municipal Finance. Transcripts are available at

http://www.sec.gov/spotlight/municipalsecurities/munifieldhearing072911-transcript.txt and opening remarks available at

http://www.sec.gov/spotlight/municipalsecurities/statements072911.htm.

Was involved in forming a research coalition attempting to establish "The Alabama Center for Energy Systems Research."

Assist in warrant valuation for the Air Transportation Stabilization Board, December 2001 to December 2005.

Litigation Support Engagements:

Cases involving trial testimony:

June 6, 2011, Chicago, Illinois: Stafford Trading, Inc., and John S. Stafford, Jr., Plaintiffs, v. Frederick J. Lovely and Charles Pokoski, Defendants, United States District Court for the Northern District of Illinois Eastern Division, No. 05 C 4868. Deposition taken on March 30, 2007.

February 11, 2011, San Diego, California: David B. Greenberg, et al., Petitioners v. Commissioner of Internal Revenue, Respondent, United States Tax Court, Docket No. 1143-05 et al. (No deposition taken.)

Cases involving depositions:

April 23, 2010, Atlanta, Georgia: Murphy-Hoffman Company, Plaintiff v. Bank of America, N. A., United States District Court for the Western District of Missouri, No. 09-0227-CV-W-FJG.

April 15, 2010, Birmingham, Alabama: Richard M. Scrushy, et al., Defendants v. HealthSouth Corporation 2002 Derivative Litigation, Circuit Court of Jefferson County, Alabama, Case No. CV-02-5212 related arbitration against Ernst & Young, LLP, American Arbitration Association, Case No. 30 107 Y 00567 06.

March 23, 2004, Birmingham, Alabama: Brockman, Bruce v. ADTRAN In the United States District Court, Northern District of Alabama, Northeastern Division,

Rae Brockman v. ADTRAN, Inc., Case No. CV-03-J-1725-NE

Thomas Bruce v. ADTRAN, Inc., Case No. CV-03-B-1728-NE

Cases not involving depositions:

2013, Charlotte, North Carolina: Case requiring evaluation of econometric methods

2013, New York, New York: Case requiring an evaluation of an options-based approach to estimating the discount for lack of marketability.

2008, Birmingham, Alabama: Richard M. Scrushy, et al., Defendants v. HealthSouth Corporation 2002 Derivative Litigation, Circuit Court of Jefferson County, Alabama, Case No. CV-02-5212.

2007, Tuscaloosa, Alabama: L&A Express Markets, Inc. v. Friday Oil Company, Inc., Circuit Court of Tuscaloosa County, Alabama, Civil Action No: CV-2004-1744-JHE.

2007. McCormick Taylor, Inc. v. Sovereign Bank, Court of Common Pleas, Philadelphia County, PA, January, 2005 Term, No. 002586. (Expert report filed related to interest rate swap contracts.)

2004-2005. Four cases involving valuation of executive stock options.

2001. City of Birmingham, Alabama, et al. v. Council of the City of Birmingham, et al. Case No. 96-51817, Circuit Court of Jefferson County, Alabama. (Provided financial valuations of different contracts for the Birmingham Water Works.)

October, 1997. Doctors Hospital 1984, LTD v. Goldman Sachs & Co. Case No. 96-51817, District Court of Harris County, Texas. (Alleged violation of underwriting agreement.)

Actively consulted with several energy trading firms related to implementing risk management systems.

Widely quoted in newspapers, heard on radio, and appeared on television. Selected appearances include:

Television: ABC, Fox, NBC (Birmingham affiliates), Fox (National), NOW TV (Hong Kong)

Radio: NPR, All Things Considered, June 5, 2013, Andrew Yeager "Largest Municipal Bankruptcy In U.S. Nears End." Link: http://www.npr.org/2013/06/05/188974128/largest-municipal-bankruptcy-in-u-s-nears-end

Quoted in *The New York Times*, April 8, 2009 (Lewisburg, Tennessee swap transaction).

Quoted in *Birmingham Business Journal*, related to Southern Co. decision not to spin off transmission grid about September 11, 2000.

Quoted in *The Bond Buyer*, related to City of Tampa swaption trade about September 29, 1997.

Quoted in *The Wall Street Journal*, August 13, 1997 (Southeast Edition).

Abstract writer for the CFA Digest and ISFA Digest, approximately 1 abstract per issue. 1995 to 1997.

Selected Practitioner Conference Speaker:

"Interest Swaps/Fixed Rates: When to Refinance," County Financial Administration Workshop, February 12, 2009

"Municipal Interest Rate Swaps," Auburn Municipal Finance, March 3, 2006

"Corporate Financial Risk Management," Boston, September 29, 2005

"Enterprise Risk Management: Lessons from the Energy Market," Birmingham Leadership Council, SouthTrust Bank, January 14, 2003

"Energy Risk Management," Various Energy Companies, 2001-2003

"Secrets of the Municipal Derivatives Markets," Grant's Municipal Bond Conference, September 24, 1997

Compass Bank Annual Investments Seminar 1994, 1995, 1999, 2002 International Association of Financial Engineers 1994, 1995

"Interest Rate Risk Management," University of Alabama, 1991

"Term Structure Modeling," half day seminar, Conference on Computational Intelligence and Financial Engineering, March 24, 1996

Derivative valuation services have been provided for municipalities, major auditing firms, insurance companies, commercial banks and investment bankers.

Derivative pricing models have been developed including interest rate caps, floors, swaps, swaptions, deferred American-style swaptions, index amortizing swaps, CMT swaps, CMT caps and floors, knock-out caps and floors, barriers and spread options.

Software Editor for Financial Practice and Education (1991-1993).

Taught derivative securities section for The Financial Analysts Review program for the CFA exam in 1992, 1993, 1998 to 2007. Taught debt securities section at Level II from 1999 to 2000.

PROFESSIONAL MEMBERSHIPS:

Academy of Financial Services
American Finance Association
Association for Investment Management and Research
CFA Society of Alabama
Eastern Finance Association
Financial Management Association International
Global Association of Risk Professionals
Southern Finance Association

PROFESSIONAL REFERENCES:

Don M. Chance, Ph.D., CFA
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