

George Zanjani

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The Culverhouse College of Business
Department of Economics, Finance, & Legal Studies
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Education

Ph.D., Economics, University of Chicago, 2000
ACAS, Casualty Actuarial Society, 1994
A.B. / B.S., Economics and Biology, Stanford University, 1990

Work Experience

University of Alabama (Tuscaloosa, Alabama)
Professor of Finance and Frank Park Samford Chair of Insurance, 2017-

University of Cologne
Gen Re Visiting Professor, 2023

Georgia State University (Atlanta, Georgia)
AAMGA Distinguished Chair in Risk Management & Insurance, 2011-2017
Associate Professor, 2008-2017

Nanyang Technological University (Singapore)
Visiting Senior Research Fellow, 2011-12, 2013-2014

Federal Reserve Bank of New York (New York, New York)
Senior Economist, 2006-2008
Economist, 2000-2006

Fireman's Fund Insurance Companies (Novato, California)
Senior Actuarial Analyst, 1993-94
Actuarial Analyst, 1991-1993
Assistant Actuarial Analyst, 1990-1991

Publications: Refereed Scholarly

"Dynamic Capital Allocation in General Insurance," (with Daniel Bauer and Qiheng Guo), *Journal of Risk and Insurance* (forthcoming)

"The Impact of Income Smoothing on Accounting Aggregates: The Case of the Property-Casualty Industry," (with Eren Cifci, Qianlong Liu, Steve Mildenhall, Lars Powell, and Kenny Wunder), *Journal of Risk and Insurance* (forthcoming)

- "Pricing Insurance Risk: Reconciling Theory and Practice," (with Daniel Bauer and Richard D. Phillips), in *Handbook of Insurance* (3rd edition), Georges Dionne (ed.), New York: Springer (2025)
- "Market Discipline and Government Guarantees: Evidence from the Insurance Industry," (with Yiling Deng, Tyler Leverty, and Kenny Wunder), *Journal of Risk & Insurance* 92: 76-115, (2025)
- "Economic Capital and RAROC in a Dynamic Model," (with Daniel Bauer), *Journal of Banking and Finance*, 125: Article 106071, (2021) [Winner of Casualty Actuarial Society Hachemeister Prize, 2015]
- "Capital Allocation Techniques: Review and Comparison," (with Daniel Bauer and Qiheng Guo), *Variance*, 14(2), (2021)
- "Dynamic Capital Allocation with Irreversible Investments," (with Daniel Bauer, Shinichi Kamiya, and Xiaohu Ping), *Insurance: Mathematics and Economics* 85: 138-52, (2019)
- "What Drives Tort Reform Legislation? Economics and Politics of the State Decisions to Restrict Liability Torts," (with Yiling Deng), *Journal of Risk & Insurance* 85: 959-991, (2018)
- "Egalitarian Equivalent Capital Allocation," (with Shinichi Kamiya), *North American Actuarial Journal* 21: 382-96, (2017)
- "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," (with Daniel Bauer), *Management Science* 62: 1431-1457 (2016)
- "Economic Analysis of Risk and Uncertainty Induced by Health Shocks: A Review and Extension," (with Tomas J. Philipson), in *Handbook of the Economics of Risk and Uncertainty*, Volume 1, Mark J. Machina and W. Kip Viscusi (eds.), North Holland: Elsevier (2014)
- "Capital Allocation and Its Discontents," (with Daniel Bauer), in *Handbook of Insurance* (2nd edition), Georges Dionne (ed.), New York: Springer (2013)
- "Financial Pricing of Insurance," (with Daniel Bauer and Richard D. Phillips), in *Handbook of Insurance* (2nd edition), Georges Dionne (ed.), New York: Springer (2013)
- "Insurance Risk, Risk Measures, and Capital Allocation: Navigating a Copernican Shift," (with Michael R. Powers), *Annual Review of Financial Economics* 5: 201-223 (2013)
- "Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer," (with Darius Lakdawalla), *Journal of Risk & Insurance* 79, pp. 449-76 (2012)

- "An Economic Approach to Capital Allocation," *Journal of Risk and Insurance* 77, pp. 523-549 (2010) [Winner of Casualty Actuarial Society ARIA Award, 2010]
- "Federal Financial Exposure to Catastrophic Risk," (with J. David Cummins and Michael Suher), in *Measuring and Managing Federal Financial Risk*, Deborah Lucas (ed.), Chicago: University of Chicago Press (2010)
- "Public versus Private Underwriting of Catastrophe Risk: Lessons from the California Earthquake Authority," in *Risking House and Home: Disasters, Cities, Public Policy*, John M. Quigley and Larry A. Rosenthal (eds.), Berkeley: Berkeley Public Policy Press (2008)
- "Regulation, Capital, and the Evolution of Organizational Form in U.S. Life Insurance," *American Economic Review* 97, pp. 973-983 (2007)
- "Insurance, Self Protection, and the Economics of Terrorism," (with Darius Lakdawalla), *Journal of Public Economics* 89, pp. 1891-1905 (2005)
- "Terrorism Insurance Policy and the Public Good," (with Darius Lakdawalla), *St. John's Journal of Legal Commentary* 18, pp. 463-469 (2004)
- "The Production and Regulation of Health Insurance: Limiting Opportunism in Proprietary and Non-Proprietary Organizations," (with Tomas Philipson) in *Individual Decisions for Health*, Bjorn Lindgren (ed.), pp. 194-206, Routledge International Studies in Health Economics, Routledge: London (2003)
- "Pricing and Capital Allocation in Catastrophe Insurance," *Journal of Financial Economics* 65, pp. 283-305 (2002) [reprinted in *Insurance and Risk Management Volume I: Economics of Insurance Markets*, Gregory Niehaus (ed.), Northampton: Edward Elgar Publishing, (2008)]

Publications: Professional/Practitioner

- Book review of "Moral Hazard in Health Insurance," *Journal of Economic Literature* 53, pp. 682-3 (2015)
- "Microinsurance Lessons from History," (with Rick Koven), *Microinsurance Learning and Knowledge (MILK)* (2013)
- "Institutional Investors and Asset Allocations: Accounting and Regulation of Private Defined Benefit Pension Plans and Other Institutional Investors in the United States, Mexico, and Australia," (with John Broadbent, Michael Palumbo, and Julio Santaella), CGFS Publication No. 27, Working Group on Institutional Investors, Global Savings, and Asset Allocation (2006)
- "An Overview of Political Risk Insurance" (with Kausar Hamdani and Elise Liebers), CGFS Publication No. 22, Working Group on Foreign Direct Investment in the Financial Sector of Emerging Market Economies (2005)

Work in Progress

- “Life Insurance and Annuity Pricing During the Financial Crisis, Revisited,” (with Daniel Bauer, Lars Powell, and Boheng Su), working paper, 2025
- “Market Discipline and Guaranty Funds in Life Insurance,” (with Martin Grace, Shinichi Kamiya, Robert W. Klein, and Kenny Wunder), working paper, 2025 (revise and resubmit, *Journal of Financial and Quantitative Analysis*)
- “An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions,” (with Daniel Bauer), working paper, 2023
- “Optimal Insurance Contracts with Insurer Background Risk,” (with Xiaohu Ping), working paper, 2015
- “The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption,” (with Shinichi Kamiya and Jackie Li), working paper, 2015
- “Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry” working paper, 2010
- “The Rise and Fall of the Fraternal Life Insurer: Law and Organizational Form in U.S. Life Insurance, 1870-1920,” working paper, (*revise and resubmit, Journal of Law & Economics*), 2007
- “Organizational Form and the Underwriting Cycle: Theory with Evidence from the Pennsylvania Fire Insurance Market, 1873-1909,” working paper, 2004
- “Consumption versus Production of Insurance,” (with Tomas Philipson), *NBER Working Paper #6225*, 1997

External Research Projects and Consulting

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| 2025 | Expert Witness, State Farm General Homeowners Rate Filing, California |
| 2025 | Expert Witness, Insurance Rate Filings, North Carolina |
| 2025 | Expert Witness, Workers’ Compensation Rate Filing, Massachusetts |
| 2024 | Expert Witness, Capstone Associated Services, Ltd. v. United States of America |
| 2024 | Expert Witness, Insurance Rate Filings, North Carolina |
| 2024 | Expert Witness, Workers’ Compensation Rate Filing, Massachusetts |
| 2023 | Using Industry Level Experience to Improve Company Loss Reserving, sponsored by CAS |
| 2023 | Expert Witness, Insurance Rate Filings, North Carolina |
| 2023 | Expert Witness, Workers’ Compensation Rate Filing, Massachusetts |
| 2022 | Expert Witness, Insurance Rate Filings, North Carolina |
| 2022 | Expert Witness, Workers’ Compensation Rate Filing, Massachusetts |
| 2021 | Expert Witness, Golson v. Provident Life, Alabama |
| 2021 | Expert Witness, Insurance Rate Filings, North Carolina |
| 2020 | Expert Witness, Insurance Rate Filings, North Carolina |

- 2020 Expert Witness, Workers' Compensation Rate Filing, Massachusetts
- 2019 NCCI Review of Cost of Capital Methodology
- 2019 Expert Witness, Insurance Rate Filings, North Carolina
- 2018 NCCI Review of TCJA
- 2017 Expert Witness, Workers' Compensation Rate Hearing, Florida
- 2016 Expert Witness, Assigned Risk Workers' Compensation Rate Hearing, Virginia
- 2015 Expert Witness, Workers' Compensation Rate Hearing, Florida
- 2015 NCCI Revision of Underwriting Profit and Contingency Internal Rate of Return Model
- 2015 An Extension of the Project on the Costs of Holding Capital, sponsored by the CAS
- 2013 Microinsurance Centre Lessons from History Project
- 2012 Allocation of the Costs of Holding Capital, sponsored by the CAS,
- 2011 CRO Risk Index Project, co-sponsored by SOA and Bloomberg, co-founder
- 2009 "The Financial Crisis and Lessons for Insurers," \$50,000 SOA grant, role: report co-author

Papers Presented at Professional Meetings

- 2023 "Life Insurance and Annuity Pricing During the Financial Crisis, Revisited" EGRIE Annual Seminar, Malaga, Spain
- 2023 "Life Insurance and Annuity Pricing During the Financial Crisis, Revisited" IME Annual Conference, Edinburgh, UK
- 2023 "Understanding Loss Reserving Errors in the Liability Catastrophe of 1997-2001," IME Annual Conference, Edinburgh, UK
- 2023 "Understanding Loss Reserving Errors in the Liability Catastrophe of 1997-2001," Gen Re Seminar, Cologne, Germany
- 2022 "Understanding Loss Reserving Errors in the Liability Catastrophe of 1997-2001," Conference in Honor of J.David Cummins and Mary Weiss, Temple University, Philadelphia
- 2020 "Life Insurance and Annuity Pricing During the Financial Crisis, Revisited" WRIEC, virtual meeting
- 2019 "An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions," EGRIE Annual Meeting, Rome, Italy
- 2019 "An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions," ARIA Annual Meeting, San Francisco, CA
- 2019 "An Integrated Approach to Measuring Asset and Liability Risks in Financial Institutions," RTS Annual Seminar, Tuscaloosa, AL
- 2017 "The Effect of Government Guarantees on Market Discipline in the Property-Casualty Insurance Industry," NBER Insurance Project Workshop, Boston, MA
- 2015 "The Marginal Cost of Risk in a Multi-Period Model," NBER Insurance Project Workshop, Stanford, CA
- 2015 "The Marginal Cost of Risk in a Multi-Period Model," CAS Annual Meeting, Philadelphia, PA
- 2015 "Dynamic Capital Allocation," IME Annual Conference, Liverpool UK
- 2015 "What Drives Tort Reform Legislation? Economics and Politics of the State Decisions to Restrict Liability Torts," ASSA Annual Meeting, Boston, MA
- 2014 "The Marginal Cost of Risk in a Multi-Period Model," CAS Centennial, New York, NY
- 2014 "Market Discipline and Guaranty Funds in Life Insurance," EGRIE Annual Seminar, St. Gallen, CH
- 2014 "Dynamic Capital Allocation with Irreversible Investments," EGRIE Annual Seminar, St. Gallen, CH
- 2014 "What Drives Tort Reform Legislation? Economics and Politics of the State Decisions to Restrict Liability Torts," ARIA Annual Meeting, Seattle, WA
- 2014 "The Marginal Cost of Risk in a Multi-Period Model," ARIA Annual Meeting, Seattle, WA
- 2014 "Market Discipline and Guaranty Funds in Life Insurance," ARIA Annual Meeting, Seattle, WA
- 2014 "The Marginal Cost of Risk in a Multi-Period Model," IME Conference, Shanghai, CN
- 2014 "The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption," Risk Theory Seminar, Munich, Germany
- 2013 "The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption," ASSA Annual Meeting, Philadelphia, PA
- 2013 "Optimal Insurance Contracts with Insurer Background Risk," EGRIE Annual Meeting, Paris, FR

- 2013 "The Effect of Banking Crises: Evidence from Non-Life Insurance Consumption," ARIA Annual Meeting, Washington D.C.
- 2013 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," IRFRC Catastrophe Risk Conference, Singapore
- 2013 "Optimal Insurance Contracts with Insurer Background Risk," ARIA Annual Meeting, Washington D.C.
- 2013 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," CEAR/ETH Indices of Risk and New Risk Measures Conference, Zurich, CH
- 2012 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," CAS Spring Meeting, Phoenix, AZ
- 2012 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," Symposium: Risk and Catastrophic Events, State College, PA
- 2012 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," ASSA Annual Meeting, Chicago, IL
- 2011 "The Marginal Cost of Risk, Risk Measures, and Capital Allocation," NBER Insurance Project Workshop, Cambridge, MA
- 2010 "Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry," ASSA Annual Meeting, Atlanta, GA
- 2009 "Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry," Risk Management and Corporate Governance Conference, Loyola University of Chicago
- 2009 "Bankruptcy in the Core and Periphery of Financial Groups: The Case of the Property-Casualty Insurance Industry," ARIA Annual Meeting, Providence, RI
- 2008 "An Economic Approach to Capital Allocation," Risk Theory Society, Annual Meeting, Fort Collins, CO
- 2007 "Federal Financial Exposure to Catastrophic Risk," ARIA Annual Meeting, Quebec City, CA
- 2007 "Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer," EFMA Annual Meeting, Vienna, AT
- 2007 "Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer," 5th Infiti Conference on International Financial Integration, Dublin, IE
- 2007 "Federal Financial Exposure to Catastrophic Risk," NBER Conference on Measuring and Managing Federal Financial Risk, Evanston, IL
- 2006 Insuring Catastrophic Losses: The Status of TRIA and Proposed Natural Disaster Backstops, Wash., D.C.
- 2006 "Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer," Risk Theory Society, Annual Meeting, Richmond, VA
- 2006 "Public versus Private Underwriting of Catastrophe Risk: Lessons from the California Earthquake Authority," Berkeley Symposium on Real Estate, Catastrophic Risk, and Public Policy
- 2006 "Catastrophe Bonds, Reinsurance, and the Optimal Collateralization of Risk Transfer," NBER Insurance Project Workshop, Cambridge, MA
- 2005 "Regulation, Capital, and the Evolution of Organizational Form in U.S. Life Insurance," NBER Insurance Project Workshop, Cambridge, MA
- 2004 "The Rise and Fall of the Fraternal Life Insurer: Law and Organizational Form in U.S. Life Insurance," NBER Insurance Project Workshop, Cambridge, MA
- 2004 "Regulation, Capital, and the Evolution of Organizational Form in U.S. Life Insurance," American Finance Association, Annual Meeting, San Diego, CA
- 2003 "Insurance, Self-Protection, and the Economics of Terrorism," Risk Theory Society, Annual Meeting, Atlanta, GA
- 2003 "Terrorism Insurance Policy and the Public Good," St. John's Journal of Legal Commentary 10th Annual Legal Symposium: Terrorism and its Impact on Insurance: Legislative Responses and Coverage Issues, Queens, NY
- 2003 "Insurance, Self-Protection, and the Economics of Terrorism," NBER Insurance Project Workshop, Cambridge, MA
- 2002 "Pricing and Capital Allocation in Catastrophe Insurance," CAS Risk and Capital Management Seminar, Toronto, CA
- 2002 "Market Discipline and Government Guarantees in U.S. Life Insurance," Risk Theory Society, Annual Meeting, Urbana-Champaign, IL
- 2001 "Pricing and Capital Allocation in Catastrophe Insurance," Risk Theory Society, Annual Meeting, Montreal

Other Conferences Talks and Panel Participation

- 2018 Surplus Lines Automation Conference, Florida

2017 International Conference on Business Sciences, Cairo University, Egypt
 2016 IIF Insurance Colloquium, Basel, Switzerland
 2016 Surplus Lines Association of California, California (keynote)
 2014 Surplus Lines Automation Conference, Florida
 2011 PRMIA Annual Risk Leadership Conference, Atlanta, GA
 2011 7th International Microinsurance Conference, Rio de Janeiro, Brazil
 2010 Property Loss Research Bureau Eastern Adjusters Conference, Atlanta, GA (keynote)
 2008 NCOIL Annual Meeting, Duck Key, FL
 2007 Capital Markets Symposium on Securitizing Insurance Risk, New York, NY
 2006 Insuring Catastrophic Losses: The Status of TRIA and Proposed Natural Disaster Backstops, Wash., D.C.
 2006 Catastrophe Bonds and Insurance Linked Securities Summit, New York, NY
 2005 12th Annual International Conference Promoting Business Ethics, New York, NY

Service Activities in Academic and Professional Organizations

Deputy Editor-in-Chief, *Journal of Risk and Insurance* (2024-)
 Associate Editor, *Insurance: Mathematics and Economics* (2022-)
 Senior Editor, *Journal of Risk and Insurance* (2019-2024)
 International Research Advisory Board, Risk and Insurance Research Center, NCCU, Taiwan
 American Risk & Insurance Association President (2012-13)
 Risk Theory Society President (2011-2012)
 American Risk & Insurance Association Board Member (2007-2014)
 Editorial Board, *Journal of Insurance Issues* (2012-2014)
 Huebner Colloquium Panelist (2016-2019)

External Committees

American Risk & Insurance Association Program Committee, various years; ARIA Nominations Committee, 2015, 2016, 2018; Kulp-Wright Book Award Committee, 2005; ARIA Mehr Award Committee, 2019 - 2025

Discussant: *ARIA Annual Meeting, Denver, 2024; EGRIE Annual Seminar, Malaga, 2023; ARIA Annual Meeting, Los Angeles, 2022; WRIEC 2020; EGRIE Annual Meeting, Rome, 2019; ARIA Annual Meeting, San Francisco, 2019; ARIA Annual Meeting, Chicago, 2018; ARIA Annual Meeting, Boston, 2016; SIFR Insurance Conference, Stockholm, 2015; EGRIE Annual Seminar, St. Gallen, 2014; ARIA Annual Meeting, Seattle, 2014; ARIA Annual Meeting, San Diego, 2011; CEAR Workshop on Insurance for the Poor, Atlanta, 2010; CEAR Workshop on Risk Perception and Subjective Beliefs, Atlanta, 2010; Midwest Finance Association Annual Meeting, Chicago, 2009; 5th Infiniti Conference, Dublin, 2007; EFMA Annual Meeting, Vienna, 2007; AEA Annual Meeting, San Diego, 2004*

Session Chair: *ARIA Annual Meeting, Chicago, 2018, ARC, Atlanta, 2017; IME, Atlanta, 2017; ARIA Annual Meeting, San Diego, 2011; Midwest Finance Association Annual Meeting, Chicago, 2009; ARIA Annual Meeting, Quebec City, 2007; EFMA Annual Meeting, Vienna, 2007;*

Referee for *Asia-Pacific Journal of Risk and Insurance, Astin Bulletin, Australian Social Monitor, Contemporary Economic Policy, Current Issues in Economics and Finance, Defense and Peace Economics, European Economic Review, Financial Review, Geneva Papers: Issues and Practice, Geneva Risk and Insurance Review, Health Affairs, Insurance: Mathematics and Economics, Journal of Banking and Finance, Journal of Business, Journal of Finance, Journal of Financial Intermediation, Journal of Financial Services Research, Journal of Financial and Quantitative Analysis, Journal of Law and Economics, Journal of Mathematical Economics, Journal of Money, Credit, and Banking, Journal of Political Economy, Journal of Risk and Insurance, Management Science, Mathematical*

Social Sciences, North American Actuarial Journal, Proceedings of the National Academy of Sciences, Review of Financial Studies, Risk Management and Insurance Review, Scandinavian Actuarial Journal, and Science.

Working Group Participation

Committee on the Global Financial System, Working Group on Institutional Investors, Global Savings, and Asset Allocation (2006); Presidential Working Group on Financial Markets, Working Group on Terrorism Insurance (2006)

Continuing Education Activities

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| 2004-2007 | Central Banking Seminar, Federal Reserve Bank of New York, Topics: Introduction to U.S. Financial Markets; Introduction to Non-bank Financial Institutions |
| 2009 | Texas Farm Bureau Program, Georgia State University, Topic: Securitization, the Insurance Industry, and the Panic of 2007 |
| 2009-2012 | Horst K. Jannott Visiting Fellows Program, Georgia State University, Topics: Securitization, the Insurance Industry, and the Panic of 2007; Introduction to Statistics |