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Education

Harvard University
Ph.D. in Statistics, 1987
Concentration in Strategic Decision Making and Negotiation

Yale University, four-year B.S./M.A. program
M.A. in Statistics, 1982
B.S. in Applied Mathematics, 1982, *summa cum laude*

Employment

2014-Present Zurich Group Professor of Risk Mathematics, School of Economics and Management
Professor, Schwarzman Scholars Program (dual appointment)
Tsinghua University, Beijing, China

Research Interests

- Financial Regulation and Public Policy
- Game Theory in Risk and Insurance
- Mathematical Models in Enterprise Risk Management
- Tax Treatment of Risk Transfers
- Cultural Attitudes and Risk Finance

2011-2014 Zurich Group Professor of Risk Mathematics
School of Economics and Management, Tsinghua University, Beijing, China

2002-2013 Professor of Risk and Insurance
Fox School of Business and Management, Temple University, Philadelphia, PA

2008-2010 Distinguished Visiting Professor of Finance
School of Economics and Management, Tsinghua University, Beijing, China

2005 (Summer) Visiting Professor of Finance
School of Economics and Management, Tsinghua University, Beijing, China

1996-2002 Associate Professor of Risk and Insurance
Fox School of Business and Management, Temple University, Philadelphia, PA

1990-1996 Assistant Professor of Risk and Insurance
Fox School of Business and Management, Temple University, Philadelphia, PA

- 1995 (May) Visiting Professor of Economics
Federal University of Cear, Fortaleza, Brazil
- 1987-1990 Deputy Insurance Commissioner, Office of Rate and Policy Regulation
Pennsylvania Insurance Department, Harrisburg, PA

Responsibilities

- Managed 50 professional employees in Bureaus of Accident and Health, Life, and Property and Casualty Insurance
- Oversaw Department's annual review of 50,000 rate and policy filings
- Represented Department on Pennsylvania Health Care Cost Containment Council
- Presided over public hearings throughout the Commonwealth on non-profit health and automobile insurance rate filings

Accomplishments

- Assisted in drafting *Act 6* of 1990, automobile insurance reform law containing optional verbal tort threshold, capping of medical provider reimbursements, medical peer review, and collateral source rule
- Oversaw expansion of office staff by 60% (of actuarial staff by 80%)
- Streamlined office reporting structure, creating three separate bureaus
- Developed and implemented actuarial examination study program

- 1987 (Spring) Visiting Assistant Professor of Mathematics
Connecticut College, New London, CT

- 1981-1987 Insurance Consultant, Expert Witness
Chang and Company, Boston, MA

Selected Clients:

Massachusetts Attorney General, Boston, MA (1982-1986)

- Prepared filings for automobile and health insurance rate hearings
- Proposed new method for determining automobile liability insurance increased-limit factors

Central Diagnostic Laboratory, Tarzana, CA (1986)

- Reviewed California Department of Health Services' audit of clinical services for medical assistance patients
- Proposed criterion for determining equitable court-ordered recoveries from service providers to third-party payers

Associated Industries of Massachusetts, Boston, MA (1984)

- Prepared filing for workers' compensation insurance rate hearing
- Developed new techniques for forecasting liability insurance losses

Editorships

- 2009-2015 Editor-in-Chief, *Asia-Pacific Journal of Risk and Insurance*
Asia-Pacific Risk and Insurance Association, Singapore
- 2004-2013 Editor-in-Chief, *Journal of Risk Finance*
Emerald Group Publishing Limited, Bingley, England

1999-2004 Co-Editor, *Risk Management and Insurance Review*
American Risk and Insurance Association, Malvern, PA

Editorial Boards

2012-Present Associate Editor, *Journal of Financial Perspectives*
 2012-Present Associate Editor, *Risks*
 2011-Present Associate Editor, *Intl. Journal of Contemporary Economics and Admin. Sciences*
 2007-Present Associate Editor, *Ege Academic Review*
 2003-Present Associate Editor, *Journal of Insurance and Risk Management*
 2001-Present Associate Editor, *Journal of Risk Management*

Advisory Boards

2013-Present Academic Advisory Committee, Schwarzman Scholars Program
 2012-Present International Center for Global Risks Economic Research
 2011-Present Risk and Insurance Research Center, National Cheng-Chi University
 2011-Present Center for Insurance Studies, Sungkyunkwan University
 2010-Present International Academic Advisory Board, Singapore College of Insurance
 2009-Present Chair, Academic Committee, China Center for Insurance and Risk Management
 2004-Present Department of Finance and Insurance, Lingnan University

Other Appointments

2013-Present Principal Investigator, AXA Research Project, “Cultural Attitudes and Risk Finance”
 2013-2015 Co-Director, China Center for Financial Research, Tsinghua University
 2012-2015 Interim Chair, Department of Finance, Tsinghua University
 2009-2010 Chair, Fox School Collegial Assembly, Temple University
 2000-2008 Co-Director, Advanta Center for Financial Institutions Research, Temple University
 1996-2000 Chair, Department of Risk, Insurance, and Healthcare Mgmt., Temple University
 2010-2015 Program Co-Chair, China International Conference in Insurance and Risk Mgmt.
 2015 Session Chair, World Risk and Insurance Economics Congress, Munich, Germany

- 2015 Program Co-Chair, Tsinghua-PKU-Stanford Conf. in Quant. Finance, Beijing, China
- 2014 Session Chair, Risk Measures and Regulation in Insurance, Zurich, Switzerland
- 2011 Session Chair, Asia-Pacific Risk and Insurance Association, Tokyo, Japan
- 2010 Session Chair, World Risk and Insurance Economics Congress, Singapore
- 2006 Session Chair, China International Conference in Finance, Xi'an, China
- 2000-2003 Academic Moderator, International Insurance Society Seminar
- 1997 Program Chair, Managing Risk in the 21st Century, Temple University
- 2000-2004 Member, Philadelphia Mayor's Task Force on Automobile Insurance

Books, Monographs

- The Political Economy of Chinese Finance*, 2016 (with J. Jay Choi and Xiaotian Tina Zhang), Bingley, UK: Emerald Group Publishing, forthcoming.
- Acts of God and Man: Ruminations on Risk and Insurance*, 2012, New York: Columbia University Press.
- Icons* (science-fiction/fantasy novel), 2003, San Francisco: Dry Bones Press.
- Global Risk Management: Financial, Operational, and Insurance Strategies*, 2002 (with J. Jay Choi, eds.), Amsterdam: JAI Press/Elsevier.
- The Economics and Politics of Choice No-Fault Insurance*, 2001 (with Edward L. Lascher, Jr., eds.), Boston: Kluwer Academic Publishers.
- Credibility and Loss Distributions*, 1993, course text, Department of Risk Management and Insurance, Temple University.
- Combining Forecasts from Non-Cooperative Experts in a Public Forum*, 1987, doctoral dissertation, Department of Statistics, Harvard University.

Journal Articles

- "Paradox-Proof Utility Functions for Heavy-Tailed Payoffs: Two Instructive Two-Envelope Problems," 2015, *Risks*, 3, 26-34, DOI:10.3390/risks3010026.
- "The Relationship between Regulatory Pressure and Insurer Risk Taking," 2014 (with Wen-chang Lin and Yi-hsun Lai), *Journal of Risk and Insurance*, 81, 2, 271-301.
- "Fourier-Analytic Measures for Heavy-Tailed Insurance Losses," 2014 (with Thomas Y. Powers), *Scandinavian Actuarial Journal*, DOI: 10.1080/03461238.2013.859634.
- "On the Use of Controversial Risk Classifications in Personal Insurance," 2014 (with Zaneta A. Chapman), *Journal of Legal, Ethical, and Regulatory Issues*.

- “Insurance Risk, Risk Measures, and Capital Allocation: Navigating a Copernican Shift,” 2013 (with George Zanjani), *Annual Review of Financial Economics*, 5, 201-223.
- “Risk Finance for Catastrophe Losses with Pareto-Calibrated Lévy-Stable Severities,” 2012 (with Thomas Y. Powers and Siwei Gao), *Risk Analysis*, 32, 11, 1967-1977.
- “Financing Aloof Risks: No Silver Bullet or Sacred Cow,” 2012, *European Financial Review*, June/July, 78-80.
- “Aloof Risks and Bayesian Beliefs: Toward a Science of Risk,” 2012, *European Financial Review*, April/May, 85-88.
- “A Risk-Based Risk Finance Paradigm,” 2012 (with Siwei Gao and Zaneta A. Chapman), *Journal of Financial Transformation*, 35, 173-178.
- “The Valuation of Contingent Capital with Catastrophe Risks,” 2009 (with Shih-Kuei Lin and Chia-Chien Chang), *Insurance: Mathematics and Economics*, 45, 1, 65-73.
- “Life Insurance Efficiency in China: A Comparison of Foreign and Domestic Firms,” 2009 (with Bingzheng Chen and Joseph Qiu), *China and World Economy*, 17, 6, 43-63.
- “Colonel Blotto in the War on Terror: Implications for Event Frequency,” 2009 (with Zhan Shen), *Journal of Homeland Security and Emergency Management*, 6, 1, 18, 1-16.
- “Adverse Selection or Advantageous Selection? Risk and Underwriting in China’s Health Insurance Market,” 2009 (with Feng Gao and Jun Wang), *Insurance: Mathematics and Economics*, 44, 3, 505-510.
- “Risk and Return Measures for a Non-Gaussian World,” 2009 (with Thomas Y. Powers), *Journal of Financial Transformation*, 25, 51-54.
- “Social Stability and Catastrophe Risk: Lessons from the *Stag Hunt*,” 2008 (with Zhan Shen), *Journal of Theoretical Politics*, 20, 4, 477-497.
- “Can Independent Underwriters Benefit Insurers in High-Risk Lines? A Cournot Market-Game Analysis,” 2008 (with Jiang Cheng), *Assurances (Insurance and Risk Management)*, 76, 3, 5-44.
- “Development of the Chinese Life Insurance Industry: An Efficiency Analysis,” 2008 (with Bingzheng Chen and Joseph Qiu), *Journal of Financial Transformation*, 22, 123-130.
- “Using Aumann-Shapley Values to Allocate Insurance Risk: The Case of Inhomogeneous Losses,” 2007, *North American Actuarial Journal*, 11, 3, 113-127.
- “Leapfrogging’ Insurance Technology: Regulating Opportunity in Developing Property-Liability Markets,” 2007 (with R. B. Drennan, Jr. and Imelda Yeung Powers), *Journal of Insurance and Risk Management*, 6, 11, 37-47.

- “What Is Insurance? Toward a Theory of ‘Aloof’ and ‘Quasi-Aloof’ Financial Risks,” 2007 (with R. B. Drennan, Jr.), *Journal of Insurance and Risk Management*, 5, 10, 1-11.
- “A ‘Square-Root Rule’ for Reinsurance,” 2006 (with Martin Shubik), *Revista de Contabilidade e Finanças (Review of Accounting and Finance)*, 17, 5, 101-107.
- “How Taxes Affect Market Price: The ‘Longs and Shorts’ of Discounting and Information,” 2005 (with David M. Schizer and Martin Shubik), *Journal of Derivatives Accounting*, 2, 2, 155-164.
- “Forecasts from Biased Experts: A ‘Meta-Credibility’ Problem,” 2005, *Journal of Risk Finance*, 6, 1, 47-59.
- “Market Bubbles and Wasteful Avoidance: Tax and Regulatory Constraints on Short Sales,” 2004 (with David M. Schizer and Martin Shubik), *Tax Law Review*, 57, 2, 233-274.
- “The Relationship between Underwriting Profit Margin and Investment Income: Changes in Competitiveness in Property and Liability Insurance,” 2004 (with Chao-chun Leng and Emilio C. Venezian), *Journal of Insurance and Risk Management*, 3, 5, 35-61.
- “September 11 Victims, Random Events, and the Ethics of Compensation,” 2004 (with Edward L. Lascher, Jr.), *American Behavioral Scientist*, 48, 3, 281-294.
- “Mean-Preserving Transformations: Market Insurance vs. Self-Insurance,” 2004 (with Larry Y. Tzeng), *Journal of Insurance and Risk Management*, 2, 4, 15-28.
- “Of Happy and Hapless Regulators: The Asymptotics of Ruin,” 2003 (with Emilio C. Venezian and Iana B. Jucá), *Insurance: Mathematics and Economics*, 32, 2, 317-330.
- “Catastrophe Risk and Insurer Solvency: A Diffusion-Jump Approach,” 2003 (with Jiandong Ren), *Assurances (Insurance and Risk Management)*, 71, 2, 239-263.
- “‘Leapfrogging’ the Variance: The Financial Management of Extreme-Event Risk,” 2003, *Journal of Risk Finance*, 4, 4, 26-39.
- “Competitive Equilibrium in Insurance: A Risk Transfer Analysis,” 2003 (with Larry Y. Tzeng), *Journal of Insurance and Risk Management*, 1, 2, 27-45.
- “Did Regulation Change Competitiveness in Property-Liability Insurance? Evidence from Underwriting and Investment Income,” 2002 (with Chao-chun Leng and Emilio C. Venezian), *Journal of Insurance Regulation*, 21, 2, 57-77.
- “Toward a Theory of Reinsurance and Retrocession,” 2001 (with Martin Shubik), *Insurance: Mathematics and Economics*, 29, 2, 271-290.
- “Risk Transformations, Deductibles, and Policy Limits,” 2001 (with Larry Y. Tzeng), *Journal of Risk and Insurance*, 68, 3, 465-473.
- “What Is Insurance? Lessons from the Captive Insurance Tax Controversy,” 1999 (with M. Moshe Porat), *Risk Management and Insurance Review*, 2, 2, 72-80.

- “Insurance Market Games: Scale Effects and Public Policy,” 1998 (with Martin Shubik and Shun Tian Yao), *Zeitschrift für Nationalökonomie (Journal of Economics)*, 67, 2, 109-134.
- “Insurance Premium Taxes: A Lump-Sum Proposal,” 1998 (with Larry Y. Tzeng), *Public Finance Review*, 26, 1, 53-66.
- “On the Tradeoff between the Law of Large Numbers and Oligopoly in Insurance,” 1998 (with Martin Shubik), *Insurance: Mathematics and Economics*, 23, 2, 141-156.
- “Expert Opinion and Automobile Insurance Reform: An Empirical Assessment,” 1997 (with Edward L. Lascher, Jr.), *Journal of Insurance Regulation*, 16, 2, 197-222.
- “Seeking the Perfect Catastrophe Index,” 1997 (with Imelda Yeung Powers), *Best’s Review, Property/Casualty Edition*, December, 101-103.
- “Captive Insurance Tax Policy: Resolving a Global Problem,” 1995 (with M. Moshe Porat), *Geneva Papers on Risk and Insurance: Issues and Practice*, 20, 75, 197-229.
- “A Theory of Risk, Return, and Solvency,” 1995, *Insurance: Mathematics and Economics*, 17, 2, 101-118.
- “The Value of Information in Insurance Pricing: Comment,” 1994, *Journal of Risk and Insurance*, 61, 3, 519-524.
- “A Unified Approach to Captive Insurance Tax Policy: Theory and Practice,” 1994 (with M. Moshe Porat), *Risk Management*, September, 50-63.
- “Captive Insurer Insolvency: Piercing the Corporate Veil,” 1993 (with M. Moshe Porat), *Journal of Insurance Regulation*, 12, 2, 221-244.
- “Equity in Automobile Insurance: Optional No-Fault,” 1992, *Journal of Risk and Insurance*, 59, 2, 203-220.
- Book Chapters, Proceedings**
- “Insurance,” 2007 (with Piyawadee Khovidhunkit), in *Encyclopedia of Electrical and Electronics Engineering*, Volume 10 (John G. Webster, ed.), New York: John Wiley and Sons.
- “Global Risk Management: Concepts and Strategies,” 2002 (with J. Jay Choi), in *Global Risk Management: Financial, Operational, and Insurance Strategies*, (J. Jay Choi and Michael R. Powers, eds.), Amsterdam: JAI/Elsevier Science, 3-5.
- “‘Leapfrogging’ the Variance: The Financial Management of Extreme-Event Risk,” 2002, in *Global Risk Management: Financial, Operational, and Insurance Strategies*, (J. Jay Choi and Michael R. Powers, eds., 2002), Amsterdam: JAI/Elsevier Science, 39-58.

- “An Introduction to Choice No-Fault,” 2001 (with Edward L. Lascher, Jr.), in *The Economics and Politics of Choice No-Fault Insurance* (Edward L. Lascher, Jr. and Michael R. Powers, eds.), Boston: Kluwer Academic Publishers, 3-16.
- “Choice No-Fault Insurance: Efficiency and Equity,” 2001 (with Edward L. Lascher, Jr.), in *The Economics and Politics of Choice No-Fault Insurance* (Edward L. Lascher, Jr. and Michael R. Powers, eds.), Boston: Kluwer Academic Publishers, 17-28.
- “Equity in Automobile Insurance: Optional No-Fault,” 2001, in *The Economics and Politics of Choice No-Fault Insurance* (Edward L. Lascher, Jr. and Michael R. Powers, eds., 2001), Boston: Kluwer Academic Publishers, 219-239.
- “Reinsurance and Retrocession: Optimal Configurations for an Evolving Market,” 1999 (with Martin Shubik), *Proceedings of the International Insurance Society’s Annual Seminar*, 148-171.
- “Insurance,” 1999, in *Encyclopedia of Electrical and Electronics Engineering*, Volume 10 (John G. Webster, ed.), New York: John Wiley and Sons, 340-351.
- “The Captive Insurance Tax Controversy: A Heuristic Solution to an Evolving Problem,” 1995 (with M. Moshe Porat), *Proceedings of the International Insurance Society’s Annual Seminar*, 340-360.
- “Captive Insurer Insolvency: Is There a Case for Piercing the Corporate Veil?” 1992 (with M. Moshe Porat), *Proceedings of the International Insurance Society’s Annual Seminar*, 339-354.
- Columns, Editorials**
- “Diversification, Hedging, and ‘Pacification,’” 2010, *Journal of Risk Finance*, 11, 5, 441-445.
- “Where Ignorance Is Bliss: The ‘Dark Corner’ of Risk Classification,” 2010, *Journal of Risk Finance*, 11, 4, 353-357.
- “Uncertainty Principles in Risk Finance,” 2010, *Journal of Risk Finance*, 11, 3, 245-248.
- “Infinite-Mean Losses: Insurance’s ‘Dread Disease,’” 2010, *Journal of Risk Finance*, 11, 2, 125-128.
- “Presbyter Takes Knight,” 2010, *Journal of Risk Finance*, 11, 1, 5-8.
- “How Money Got Its Tail (Not Too Heavy; Not Too Light; but ‘Just So’),” 2009, *Journal of Risk Finance*, 10, 5, 425-429.
- “Constant-Sum Sampling: An Apology for Statistics’ ‘Original Sin,’” 2009, *Journal of Risk Finance*, 10, 4, 317-320.
- “Rethinking Risk and Return: Part 2 – Some Felicitous Fourier Frequencies,” 2009, *Journal of Risk Finance*, 10, 3, 205-209.
- “Rethinking Risk and Return: Part 1 – Novel Norms for Non-Normality,” 2009, *Journal of Risk Finance*, 10, 2, 101-106.

- “Insurance Regulation in America – Playing Out of Its League,” 2009, *Journal of Risk Finance*, 10, 1, 5-6.
- “Combining Information about ... Combining Information,” 2008, *Journal of Risk Finance*, 9, 5, 417-421.
- “The Sequential Sawyer – A Tale of Frequentist Fright,” 2008, *Journal of Risk Finance*, 9, 4, 313-316.
- “Lanchester Resurgent? The Mathematics of Terrorism Risk,” 2008, *Journal of Risk Finance*, 9, 3, 225-231.
- “The Nature of Randomness: Part 2 – Cognitive Constraints,” 2008, *Journal of Risk Finance*, 9, 2, 101-105.
- “The Nature of Randomness: Part 1 – Knowable or Unknowable?” 2008, *Journal of Risk Finance*, 9, 1, 5-8.
- “Intuition and Surprise,” 2007, *Journal of Risk Finance*, 8, 5, 429-433.
- “Thoughts on the ‘Scientific Method’: Part 2 – Frequentist Fecklessness,” 2007, *Journal of Risk Finance*, 8, 4, 325-329.
- “Thoughts on the ‘Scientific Method’: Part 1 – Ignorance through Inconsistency,” 2007, *Journal of Risk Finance*, 8, 3, 209-213.
- “Sharing Responsibility: What They Didn’t Teach You in Kindergarten,” 2007, *Journal of Risk Finance*, 8, 2, 93-96.
- “Human Mortality: Written in the Stars?” 2007, *Journal of Risk Finance*, 8, 1, 5-10.
- “Catastrophe Forecasting: Seeing ‘Gray’ among the ‘Black Boxes,’” 2006, *Journal of Risk Finance*, 7, 5, 458-462.
- “Pure vs. Speculative Risk: False Choice; Sham Marriage,” 2006, *Journal of Risk Finance*, 7, 4, 345-347.
- “The Cramér-Rao Lower Bound on Variance: Adam and Eve’s ‘Uncertainty Principle,’” 2006, *Journal of Risk Finance*, 7, 3, 233-236.
- “An Insurance Paradox,” 2006, *Journal of Risk Finance*, 7, 2, 113-116.
- “From Hunter to Prisoner: Hurricane *Katrina* and the Social Contract,” 2006, *Journal of Risk Finance*, 7, 1, 5-8.
- “Salutary Skewness: Risk Financing of the Third Kind?” 2005, *Journal of Risk Finance*, 6, 5, 377-381.
- “The Terror of the ‘Black Box,’” 2005, *Journal of Risk Finance*, 6, 4, 289-291.
- “Mortality: The Alpha and the Omega of Risk,” 2005, *Journal of Risk Finance*, 6, 3, 189-191.

“If It Ain’t Brokin’ (or Regulatin’), Don’t Fix It,” 2005, *Journal of Risk Finance*, 6, 2, 85-86.

“Guidelines for Journal Editors,” 2004, *ARIA News*, 9, 1, 10-11.

“Automobile Insurance: The ‘Modal’ Property-Liability Line,” 2001, *Risk Management and Insurance Review*, 4, 1, 35-38.

Discussion Papers

“The Value of Government and the Efficiency of Non-Cooperative Equilibrium,” 2014 (with Martin Shubik), *Santa Fe Institute Working Paper*, No. 2014-11-040, Santa Fe Institute.

“A Note on a ‘Square-Root Rule’ for Reinsurance,” 2005 (with Martin Shubik), *Cowles Foundation Discussion Paper*, No. 1521, Yale University.

“Market Bubbles and Wasteful Avoidance: Tax and Regulatory Constraints on Short Sales,” 2003 (with David M. Schizer and Martin Shubik), *Cowles Foundation Discussion Paper*, No. 1413, Yale University.

“Automobile Insurance in Philadelphia: Who Is Really at Fault?” 2000, *Fox School Working Paper*, Temple University.

“Toward a Theory of Reinsurance and Retrocession,” 1999 (with Martin Shubik), *Cowles Foundation Discussion Paper*, No. 1227, Yale University.

“Insurance-Based Securities: The Specialization of Risk Bearing,” 1998 (with Imelda Yeung Powers), *Fox School Working Paper*, Temple University.

“Insurance Market Games: Scale Effects and Public Policy,” 1994 (with Martin Shubik and Shun Tian Yao), *Cowles Foundation Discussion Paper*, No. 1076, Yale University.

“Automobile Insurance in Pennsylvania: Problems and Solutions,” 1990, internal report, Pennsylvania Insurance Department.

“Modeling Automobile Insurance Pure Premiums in Massachusetts,” 1985, qualifying paper, Department of Statistics, Harvard University.

Consulting Reports

Premiums Paid to ABX Insurance, Ltd., 2002, prepared for Barrick Gold Corporation.

The 1998 and 1999 Member Dividends of Oil Insurance, Ltd., 1999, prepared for Sunoco, Inc.

An Insurance Analysis of the UPS Excess Value Program, 1997, prepared for the United States Internal Revenue Service.

The Taxation of Captive Insurance: The Case of KIC, Ltd., 1996 (with M. Moshe Porat), prepared for Kidde Industries, Inc.

The Taxation of Captive Insurance: Report in the Case of Hospital Corporation of America and Subsidiaries v. Commissioner, 1994 (with M. Moshe Porat), prepared for the United States Internal Revenue Service.

Statistical Procedures Used in the Case of Maleski v. Alexander and Alexander, Inc., et al., 1993, prepared for the Mutual Fire, Marine, and Inland Insurance Company.

Determination of Exposure Basis, Reserves-Strengthening, Executive Compensation, and Efficiency Standards for 1989 California Rate Calculations, 1991, prepared for Consumers Union of the U.S., Inc.

Determination of Rate of Return, Leverage Factor, and Projected Yield for 1989 California Rate Calculations, 1991, prepared for Consumers Union of the U.S., Inc.

Testimony

United States District Court, Philadelphia, PA
General Refractories Company v. First State Insurance Company, et al. (2014)

United States Internal Revenue Service Fast-Track Hearing, Houston, TX
ABX Financeco, Inc. and Subsidiaries (2002)

United States District Court, Philadelphia, PA (deposition)
Sun Company, Inc. v. Suncor Energy, Inc. (1999)

United States Tax Court, Atlanta, GA
United Parcel Service of America and Subsidiaries, Inc. v. Commissioner (1997)

United States Court of Federal Claims, New York, NY
Kidde Industries, Inc. v. the United States (1996)

United States Tax Court, Atlanta, GA (filed testimony)
Hospital Corporation of America and Subsidiaries v. Commissioner (1994)

United States District Court, Philadelphia, PA (deposition)
Maleski vs. Alexander and Alexander, Inc., et al. (1993)

California Insurance Department, Los Angeles, CA
California Insurance Department, San Francisco, CA
Proposed Regulations to Implement *Proposition 103* (1991)

United States District Court, Philadelphia, PA
United States District Court, Harrisburg, PA
Requests for Preliminary Injunction of *Act 6* (1990)

Pennsylvania Commonwealth Court, Philadelphia, PA
Pennsylvania Commonwealth Court, Harrisburg, PA
Requests for Preliminary Injunction of *Act 6* (1990)

Ontario Automobile Insurance Board, Toronto, Canada
Hearings on No-Fault Automobile Insurance (1989)

Pennsylvania Insurance Department, Harrisburg, PA
Numerous Automobile Insurance Rate Filings (1987-1989)
Workers' Compensation Insurance Bureau Rate Filings (1988-1989)

Pennsylvania Commonwealth Court, Harrisburg, PA
Appeal of Medical Malpractice Catastrophe Loss Surcharge (1988)

Pennsylvania Senate Banking and Insurance Committee, Philadelphia, PA
Hearings on Pennsylvania Automobile Insurance Market (1987)

Pennsylvania House Committee on Long-Term Care, Harrisburg, PA
Hearings on NAIC Model Act for Long-Term Care Insurance (1987)

Massachusetts Insurance Division, Boston, MA
Automobile Insurance Bureau Rate Filings (1983-1986)

Invited Presentations

ETH Risk Center Workshop, ETH Zurich, Zurich, Switzerland (2015)
“A Theory of Bounded Utility for Insurance: Experimental Evidence and Implications for China’s Personal Property Market”

China Academy of Financial Research, ZUFE, Hangzhou, China (2015)
“A Theory of Bounded Utility for Insurance Decision Making” (Keynote)

Chinese Academy of Finance and Development, CUFU, Beijing, China (2015)
“Heavy-Tailed Insurance Losses: Are Infinite Means Realistic?”

Tesla Memorial Conference, New York, NY (2015)
“Tesla’s Research Ethos: Implications for Chinese Higher Education”

Conference on Industrial Economics and Economic Theory, Jinan, China (2014)
“Microinsurance without Underwriting: An Application of Risk-Revealing Contract Design” (Keynote)

Cross-Strait Capital Market Forum, Feng Chia University, Taichung, Taiwan (2014)
“Asymmetric Information in China’s Auto Insurance Market” (Keynote)

Chinese Association of Quantitative Economics Conference, Hangzhou, China (2014)
“Decomposing Asymmetric Information in China’s Automobile Insurance Market” (Keynote)

Swiss Risk Association, University of Zurich, Zurich, Switzerland (2014)
“Risk and Financing of Heavy-Tailed Losses”

CRETA, National Taiwan University, Taipei, Taiwan (2014)
“The Insurance Two-Envelope Problem: A Puzzle, Wrapped in an Oddity, inside a Paradox”

School of Economics, Beijing University, Beijing, China (2014)
“The Insurance Two-Envelope Problem: Implications for Utility Modeling”

Hanqing Institute of Economics and Finance, Renmin Univ., Beijing, China (2013)
“Are Chinese More Cooperative than Americans?”

Beijing National Accounting Institute, Beijing, China (2013)
“Pitfalls in the Search for Patterns”

- Wuhan University, Wuhan, China (2012)
“Financing Insurance Risks: An Analytic Approach”
- Zhejiang University, Hangzhou, China (2011)
“A Simple Model of Risk Finance”
- Cass Business School, City University, London, UK (2011)
“Improving the Risk Finance Paradigm”
- Singapore College of Insurance, Distinguished Visitors Series, Singapore (2010)
“Global Risk Management: Key Insights”
- Tsinghua University Insurance Forum, Beijing, China (2009)
“Managing Insurer Risk in the Global Financial Crisis”
- Pennsylvania Bar Institute, Philadelphia, PA (2009)
“The Global Financial Crisis and Insurance Markets”
- Actuaries Club of Philadelphia, Philadelphia, PA (2009)
“Insurance and Actuarial Education in China: Impact of Markets and Institutions”
- China Center for Insurance and Risk Mgmt. Convocation, Beijing, China (2008)
“Managing Catastrophe Risk: An International Perspective”
- Xiamen University, Xiamen, China (2008)
“Insurance Markets without Underwriting: When Sellers React and Buyers Tremble”
- Critical Infrastructure Workshop, Naval Postgraduate School, Monterey, CA (2008)
“The Mathematics of Terrorism Risk: Equilibrium Force Allocations and Attack Probabilities”
- Tsinghua University, Beijing, China (2008)
“Insurance Markets without Underwriting: Overcoming Adverse Selection”
“The Mathematics of Terrorism Risk”
- Nankai University, Tianjin, China (2008)
“The Mathematics of Terrorism Risk”
- SCOR-*Journal of Risk and Insurance* Conference, Paris, France (2007)
“Insurance and Reinsurance Contract Formation: Insights from the Cournot Paradigm”
- Tsinghua University Insurance Forum, Beijing, China (2007)
“Optimal Insurance with Risk-Averse Buyers and Sellers: Whither the Deductible?”
- Fudan University, Shanghai, China (2007)
“Optimal Insurance with Risk-Averse Buyers and Sellers”
- Wuhan University, Wuhan, China (2007)
“Optimal Insurance with Risk-Averse Buyers and Sellers”

- Intl. Symposium on Financial Engineering and Risk Mgmt., Xiamen, China (2006)
“Using Aumann-Shapley Values to Allocate Risk: The Case of Inhomogeneous Losses”
- International Conference on Financial Engineering, Gainesville, FL (2006)
“Using Aumann-Shapley Values to Allocate Risk”
- International Insurance Federation, Philadelphia, PA (2005)
“Automobile Insurance in the United States”
- Xiamen University, Xiamen, China (2005)
“Managing Extreme-Event Risk”
“Measuring Terrorism Risk”
“A ‘Square-Root Rule’ for Reinsurance”
- Nankai University, Tianjin, China (2005)
“Extreme-Event Risk: General Observations and the Case of Terrorism”
- Saul Ewing LLP Seminar for Utility Executives, Harrisburg, PA (2005)
“Measuring the Risk of Terrorism”
- Casualty Actuaries of the Mid-Atlantic Region, Philadelphia, PA (2003)
“Automobile Insurance Reform in Pennsylvania: What Have We Learned?”
- Seminar on Law and Economics, Columbia Law School, New York, NY (2002)
“Tax and Regulatory Constraints on Short Sales: The Incoherence of Current Law”
- EURANDOM Reinsurance Workshop, Eindhoven, The Netherlands (2002)
“The Financial Management of Extreme-Event Risk”
- J. R. Cox/ACE Ltd. Symposium on Extreme Risk, Bermuda (2002)
“Pricing Risks Anew and Askew: An Unorthodox Theory of Insurance”
- International Insurance Society’s Annual Seminar, Berlin, Germany (1999)
“Reinsurance and Retrocession: Optimal Configurations for an Evolving Market”
- Pennsylvania Bar Institute, Philadelphia, PA (1999)
“Risk Management in Insurance Practice: Academic Perspectives”
- International Risk Management Group Conference, Bermuda (1997)
“Quantitative Methods in Risk Management”
- Casualty Actuaries of the Mid-Atlantic Region, Philadelphia, PA (1997)
“Today’s Property-Liability Industry: What Are the ‘Megatrends’?”
- Actuaries Club of Philadelphia, Philadelphia, PA (1995)
“Insurance-Based Securities: The Specialization of Risk Bearing”
- International Insurance Society Seminar, Washington, DC (1995)
“The Captive Insurance Tax Controversy: A Heuristic Solution to an Evolving Problem”

- International Insurance Society Seminar, Toronto, Canada (1992)
 “Captive Insurer Insolvency: Is There a Case for Piercing the Corporate Veil?”
- National Federation of Independent Business, Colorado Springs, CO (1991)
 “The Increasing Costs of Increasing Risk Aversion”
- Casualty Actuaries of the Mid-Atlantic Region, Baltimore, MD (1991)
 “Recent Developments in Automobile Insurance”
- American Risk and Insurance Association Meeting, Orlando, FL (1990)
 “Optional No-Fault Automobile Insurance: The Pennsylvania Experience”
- American Statistical Association, Harrisburg, PA (1990)
 “Statistical Methods in Insurance Regulation”
- Pennsylvania AAA Federation, Hershey, PA (1990)
 “Automobile Insurance Reform of 1990”
- Alliance of American Insurers, Amelia Island, FL (1990)
 “Insurance Price Regulation: The Case for Prior Approval”
- Pennsylvania Association of Mutual Insurance Companies, State College, PA (1989)
 “The Transition from Advisory Rates to Loss Costs”
- Independent Insurance Agents of Pennsylvania, Pittsburgh, PA (1988)
 “Insurance Price Regulation in Pennsylvania”
- Insurance Federation of Pennsylvania, Hershey, PA (1988)
 “Principles of Insurance Price Regulation”
- Academic Conferences**
- HKU-CUHK-HKUST-Stanford Conference in Quant. Finance, Hong Kong (2015)
 “Berry-Esseen Bounds for Compound-Poisson Loss Percentiles: A Reinsurance Application”
- World Risk and Insurance Economics Congress, Munich, Germany (2015)
 “Paradox-Proof Utility Functions for Heavy-Tailed Losses: The Insurance Two-Envelope Problem”
- PKU-Tsinghua-Stanford Conference in Quantitative Finance, Beijing, China (2013)
 “Fourier-Analytic Risk Measures for Heavy-Tailed Insurance Losses”
- American Risk and Insurance Association Meeting, San Diego, CA (2011)
 “Risk Finance for Catastrophe Losses with Pareto-Calibrated Lévy-Stable Severities”
- Asia-Pacific Risk and Insurance Association Conference, Tokyo, Japan (2011)
 “Risk Finance for Aggregate Losses with Pareto-Calibrated Lévy-Stable Severities”
- China International Conference in Insurance and Risk Mgmt., Beijing, China (2011)
 “Toward a New Risk Finance Paradigm”

- World Risk and Insurance Economics Congress, Singapore (2010)
“Cosine-Based Risk Measures for Skewed and Heavy-Tailed Insurance Losses”
- American Risk and Insurance Association Meeting, Providence, RI (2009)
“Equal versus Fair: A Place for Controversial Underwriting and Rating Classifications?”
- Asia-Pacific Risk and Insurance Association Conference, Beijing, China (2009)
“A ‘Coefficient of Variation’ for Skewed and Heavy-Tailed Insurance Losses”
- Intl. Congress on Insurance: Mathematics and Economics, Dalian, China (2008)
“When Sellers React and Buyers Tremble: Insurance Markets without Underwriting”
“Adverse Selection or Advantageous Selection: Risk and Underwriting in China’s Health Insurance Market”
“Optimal Layering of Catastrophe-Reinsurance Contracts”
“Allocating Premiums among Reciprocal Reinsurers”
- American Risk and Insurance Association Meeting, Québec, Canada (2007)
“Insurance Market Equilibrium with Heterogeneous Risk Aversion”
“Optimal Insurance and Reinsurance in Market Equilibrium: Insights from the Cournot Paradigm”
- American Risk and Insurance Association Meeting, Washington, DC (2006)
“Colonel Blotto in the War on Terror: Implications for Event Frequency”
“Can Independent Agents Benefit Insurers in High-Risk Lines? A Market-Game Approach”
- American Risk and Insurance Association Meeting, Chicago, IL (2004)
“The Powers-Shubik ‘Square-Root Rule’ for Reinsurance: An Empirical Assessment”
- American Political Science Association Meeting, Philadelphia, PA (2003)
“September 11 Victims, Random Events, and the Ethics of Compensation”
- American Risk and Insurance Association Meeting, Montréal, Canada (2002)
“Insurer Solvency with Parameter Uncertainty: Rethinking the Asymptotics”
“Toward a Comprehensive Model of Insurer Net Worth”
“Economic Equilibrium of Insurance Markets: A Critical Examination”
- American Risk and Insurance Association Meeting, Indianapolis, IN (2001)
“On the Relationship between Underwriting Profits and Investment Income”
“Reinsurance Retentions and Limits for Property-Liability Insurers: Theory and Empirical Tests”
- American Risk and Insurance Association Meeting, Baltimore, MD (2000)
“Increases in Risk with Multiple Decisions”
- American Risk and Insurance Association Meeting, Vancouver, Canada (1999)
“Mean-Preserving Transformations: Market Insurance vs. Self-Insurance”
- American Risk and Insurance Association Meeting, Boston, MA (1998)
“Mean-Preserving Transformations and the Demand for Insurance”
“Insurance Market Equilibrium: A Multi-Period Dynamic Solution”

American Risk and Insurance Association Meeting, San Diego, CA (1997)
 “Economic Equilibrium in Insurance Markets: Independent Risks vs. Dependent Risks”

American Risk and Insurance Association Meeting, Philadelphia, PA (1996)
 “Competitive Equilibrium in the Insurance Market”

American Risk and Insurance Association Meeting, Seattle, WA (1995)
 “Insurance Market Equilibrium: A Game-Theoretic Approach”

American Risk and Insurance Association Meeting, Toronto, Canada (1994)
 “State Premium Tax Policy: Pareto Efficiency and the Public Interest”
 “Tax Policy for Captive Insurers: The Tax-Deductibility Index”

American Risk and Insurance Association Meeting, Washington, DC (1992)
 “Risk-Theoretic Methods for Insurance Regulation”
 “Captive Insurer Insolvency: Piercing the Corporate Veil”

TIMS/ORSA Joint National Meeting, Orlando, FL (1992)
 “A Theory of Risk, Return, and Solvency”

Academic Seminars

China Center for Insurance and Risk Management Seminar, Shenzhen, China (2014)
 “Expected Utility for Insurance Losses: Some Historical Perspectives”

China Center for Insurance and Risk Management Seminar, Kunming, China (2013)
 “Measuring Insurance Company Risk”

China Center for Insurance and Risk Management Seminar, Beijing, China (2011)
 “Insurance Research and Regulatory Decision Making”

China Center for Insurance and Risk Management Seminar, Xining, China (2010)
 “Risk Classification in Insurance: Public-Policy Considerations”
 “Insurance Markets without Underwriting: Overcoming Information Asymmetry”

China Center for Insurance and Risk Management Seminar, Beijing, China (2009)
 “Enterprise Risk Management for Society at Large”

Zurich Financial Services Management Trainee Program, Xiamen, China (2008)
 “Foundations and Operations of Insurance”
 “Insurance Markets without Underwriting”
 “Enterprise Risk Management”

Marsh, Inc. Continuing Education Program, Philadelphia, PA (2000-2001)
 “Insurance Pricing”
 “Financial Risk Management”
 “Insurance-Based Securities”

Temple/Samsung Executive Education Program, Philadelphia, PA (1996-1997)
 “Forecasting, Reserving, and Pricing”
 “Price and Solvency Regulation”
 “Reinsurance and Insurance Derivatives”

Casualty Actuaries of the Mid-Atlantic Region, Philadelphia, PA (1992-1996)
 “Credibility and Loss Distributions”
 “Theory of Risk”

Automobile Insurers Bureau of Massachusetts, Boston, MA (1993)
 “Optional No-Fault Automobile Insurance”

CIGNA Worldwide, Inc., Philadelphia, PA (1992)
 “Property-Liability Pricing Theory and Methodologies”

The Ohio Casualty Group, Hamilton, OH (1992)
 “Credibility and Loss Distributions”

Media Appearances

People in the Know, China Radio International, Beijing, China (2015)
 “US Central Bank Leaves Interest Rates Unchanged”

Dialogue, CCTV News, Beijing, China (2014)
 “Alibaba Opts for U.S. Flotation”

Financial Spectrum, WKXL, Concord, NH (2012)
 “Acts of God and Man”

Saul Ewing LLP Seminar for Utility Executives, PCN, Harrisburg, PA (2005)
 “Measuring the Risk of Terrorism”

Radio Times, WHYY, Philadelphia, PA (1996)
 “Auto Insurance in Philadelphia”

The Premium Dollar Today, The Learning Channel, New York, NY (1991)
 “Auto Insurance”

Senate Journal, with Senator Craig Lewis, Harrisburg, PA (1990)
 “Pennsylvania’s New Auto Insurance Law”

Senate Journal, with Senator Jeanette Reibman, Harrisburg, PA (1990)
 “Auto Safety and Auto Insurance”

Town Meeting, WYOU, Scranton, PA (1988)
 “The Auto Insurance Outrage”

Dissertation Advising

As Committee Chair, Temple University

- Siwei Gao, August 2013, *Essays on Risk Finance and Incentive Contracting*.
- Zaneta A. Chapman, January 2010, *Risk, Return, and Credit*.
- Joseph Qiu, August 2008, *Insurance-Market Equilibrium: Contract Formation, Heterogeneity, and Operational Efficiency*.
- Zhan Shen, January 2008, *Game-Theoretic Applications in Insurance Economics*.

- Karen M. Murphy, August 2007, *Non-Primary Care Physicians' Views on Quality Incentive and Improvement Programs*.
- Iana B. Jucá, August 2006, *Some Asymptotic Results for Insurance Regulation*.
- Jiandong Ren, May 2003, *Toward a Comprehensive Model of Insurer Net Worth*.
- Chao-chun Leng, August 2001, *An Examination of the Fluctuations in Underwriting Profits of Property-Liability Insurers*.
- Jonghag Jang, August 2001, *Reinsurance Retentions and Limits for Property-Liability Insurers: Theory and Empirical Tests*.
- Wen-chang Lin, May 1998, *Stochastic Control of the Insurance Firm: Optimal Leverage and Dividends*.
- Larry Y. Tzeng, May 1996, *Economic Equilibrium in Insurance Markets*.
- Xingguo Meng, August 1994, *Insurance Markets in Developing Countries: Determinants, Policy Implications, and the Case of China*.

As Committee Member, Temple University

- Sheng Xiong, May 2011, *Stochastic Differential Equations: Some Risk and Insurance Applications*.
- Jiang Cheng, January 2008, *Essays on Regulation and Capital in the Property-Liability Insurance Industry*.
- Karen A. James, May 2007, *An Analysis of the Determinants and Implications of the Selection of Full versus Limited Tort Automobile Insurance Coverage in New Jersey and Pennsylvania*.
- Tianhui Zhou, January 2007, *New Results on False Discovery Rate and Related Measures*.
- Piyawadee Khovidhunkit, January 2005, *Demand for Automobile Insurance in the United States*.
- Sukho Lee, January 2004, *Predicting Insolvencies of Property-Liability Insurers Using Efficiency Measures*.
- Jin Park, August 2003, *Interest-Rate Sensitivity of Property-Liability Insurers and Its Relationship with Firm Characteristics*.
- Byeongyong Choi, January 2002, *An Empirical Investigation of Market Structure, Efficiency, and Performance in Property-Liability Insurance*.
- Jaehyun Kim, August 2000, *A Comparative Study on Productive Efficiency: Japan and the United States Non-Life Insurance Industries*.
- Chun-Yang Peng, August 1999, *Directions of Arrival Estimation and Association Detection in Unknown Noise Fields*.

- Joon-Hai Chung, January 1999, *The “Flight to Quality,” Global Capacity, and U.S. Reinsurance Prices.*
- Jongwook Synn, August 1998, *A Study of Regulatory Impact on Economic Efficiency of Private Pension Plans: The Malmquist-Index Approach.*
- Clara S. Chu, August 1998, *Statistical Models for Species Area Relationships.*
- Jennifer Wang, May 1998, *An Analysis of Pension Trends in the Provision of Retirement Income: From Defined Benefit to Defined Contribution Plans.*
- Jung Young Jeong, May 1996, *Assessing the Strength of the Global Insurance Industry: An Application of RBC Requirements to Insurer Insolvencies Worldwide.*
- Eric A. Ross, May 1996, *Correlated Survival Models: A Marginal Approach.*
- Yuemin Kang, August 1994, *Evaluating the PBGC’s Liability Using Plan-Specific Information.*
- Jung-Ho Lee, August 1993, *A Linear Programming Approach to Efficiency Measurement in the Property-Liability Insurance Industry.*
- Yeon Hur, May 1993, *Insurance Solvency Surveillance Systems and Their*

Phi Beta Kappa, Junior year, Yale University (1981)

Yale Scholarship Trust of Boston Awards (1979-1981)

Benjamin F. Barge Prize in Mathematics, Yale University (1979)