

SAMANTHA KAPPAGODA

1113 York Avenue, New York, N.Y. 10065

direct: (212) 208-3071 | email: skappagoda@risk-econ.com

EMPLOYMENT

Chief Economist, Risk Economics® (<https://riskeconomicsinc.com/>), New York (2009 - present)

- ◆ Primary focus: development of analytics for modeling trends and patterns across global asset classes, markets, regions, sectors and industries
- ◆ Areas of expertise and experience include (i) portfolio strategy for foreign exchange, fixed income, commodities, and capital markets activity, and (ii) econometric time-series and longitudinal analyses of business cycle dynamics, retail consumer behavior, real estate and housing markets, consumption spending and labor income, income distribution related to health, aging, retirement, population and immigration, and other demographic and socioeconomic indicators
- ◆ Technical oversight of empirical analysis conducted in connection with SB-217 pattern and practice investigation conducted by Colorado Attorney General of Aurora Police and Fire Rescue
- ◆ Provided empirical analysis and litigation support, and managing/co-managing a support team for matters involving successor liability, financial institutions bankruptcy, mergers and acquisition (M&A) intellectual property (IP) dispute, regulatory investigation of a complex asset management Ponzi scheme bankruptcy

Co-Managing Member, Numerati Partners® (<https://numeratipartnersllc.com/>), New York (2012 - present)

- ◆ Industry-commissioned proprietary research including (i) over 100 technical peer reviews of technology offerings and (ii) 14 in-depth technical evaluations/assessments of functionality, reliability, and security, as well as red team testing and edge-case analysis, across the following use-case application domains/technologies: automotive telematics; computer vision (e.g., range imaging, RGB-D, optical character recognition (OCR), object detection, optical defect detection); virtual/augmented reality; wearable technology; remote-sensing/satellite imaging; geo-fencing; mobile fleet, commercial (e.g., fault detection) and residential internet-of-things (IoT) sensor networks (e.g., electricity, fire, water intrusion monitoring); IoT cybersecurity; anomaly detection and outlier analytics (e.g., fraud detection); data warehousing, search/information retrieval; natural language processing (NLP); distributed ledger/blockchain technology; workflow robotic process automation (RPA)
 - ◆ Evaluation of pilot project participants and technology partners for R&D projects; oversight and supervision of research staff and development team
- ◆ “Bootcamp” presentations of technical content to industry stakeholders

Senior Economist, Caxton Associates, New York (1996 - 2009)

- ◆ Direct oversight of global macroeconomic analytics and portfolio strategy: Global macro hedge fund established in 1983 by Bruce Kovner, investing in global fixed income, currencies, commodities and equities. Key member of Caxton Global, the firm’s flagship global macro fund, with approximately \$15 billion of assets under management.
- ◆ Analytics and proprietary econometric models of global financial markets, the global economy, central bank and related policy actions guided the firm’s senior decision-makers for positioning and pricing trading in currencies, commodities, fixed income and equity indices
 - ◆ Analytical commentary on economic and financial market outlook, including expectations for monetary and fiscal policy, growth and inflation, labor and housing market trends, and business cycle analysis
 - ◆ Market implications of policy announcements by central banks, including Bank of Canada, Bank of England, Bank of Japan, European Central Bank, and Federal Reserve; fiscal policy developments on global financial markets, US/G7 and emerging market economies
 - ◆ Regional coverage primarily included: North America (USA, Canada, Mexico), Latin America, *European Union- 15* (including United Kingdom), Russia, Japan and Non-Japan Asia
 - ◆ Outlook for the economy including growth and inflation, employment, consumer credit, yield curves, exchange rates and other factors affecting financial market decisions

EMPLOYMENT (CONT'D)

Senior Economist, Caxton Associates, New York (1996 - 2009) Cont'd

- ◆ Market coverage and analysis supporting trading and portfolio strategy decisions by portfolio managers, particularly with regard to spot and futures exchange traded instruments, with a primary focus upon Chicago Board of Trade (CBOT), Chicago Mercantile Exchange (CME), Kansas City Board of Trade (KBOT), London Metal Exchange (LME), New York Mercantile Exchange (NYMEX) and US Future Exchange (USFE)
- ◆ Represented global macro trading desk in investor meetings; discussed global outlook and performance
- ◆ Supervised junior economists and developers on development of analytics, quantitative/econometric modeling and related research support

Economist, Operations Evaluation Department, The World Bank, Washington D.C. (1992 - 1994)

- ◆ Evaluation of structural adjustment lending programs; primary focus on the outcome, impact and sustainability of programs in emerging market economies
- ◆ Determined the optimal mix of policy options by analyzing the effects on economic performance and income distribution. Techniques included dynamic stochastic general equilibrium (DSGE) modeling, econometric analysis and forecasting.
- ◆ Conducted in-depth analysis of macroeconomic instruments and targets for over 50 emerging market countries. Constructed performance indices to compare and contrast cross-sample performance
- ◆ Evaluated structural adjustment lending portfolio. Assessed inflationary effects on the economy, differential impact across sectors, and changes in capital and trade flows. Analyzed past monetary and fiscal policy to assess implications for future policy

PROFESSIONAL ACTIVITIES

- ◆ Vice-Chair, American Bar Association (ABA) Insurance Technology and Risk (SciTech) Committee, (2019 – present)
- ◆ ABA Working Group on Resolution 700 (Use of risk assessment tools and pretrial release evaluations)
- ◆ ABA Working Group on Resolution 704 (Uniform Personal Data Protection Act)
- ◆ ABA Technical Advisor, Uniform Law Commission Study Committee for Public Health Emergency Authorities, (2020-present)

EDUCATION

M.B.A., Analytic Finance, Statistics and International Business, University of Chicago (1994 - 1996)

Doctoral Studies in Economics, University of Toronto, Canada (1991 - 1992)

- ◆ Ontario Graduate Scholarship
- ◆ Massey College Junior Fellowship

M.A. Economics, Industrial Organization and Monetary Economics, University of Toronto, Canada (1990 - 1991)

- ◆ University of Toronto Graduate Scholarship
- ◆ Massey College Junior Fellowship

Graduate Studies in Economics, Carleton University, Ottawa, Canada (1989 - 1990)

B.Sc. (Honors) Mathematics, Imperial College, London, U.K. (1986 - 1989)

- ◆ University of London Tennis Team Member
- ◆ Imperial College Tennis Team Captain

ACADEMIC ACTIVITIES

Co-Advisor, RiskEcon® Lab for Decision Metrics @ Courant Institute of Mathematical Sciences NYU (2011 - present)
Visiting Scholar, Courant Institute of Mathematical Sciences (2011 – Present)

RiskEcon Lab® (<https://wp.nyu.edu/riskeconlab/>) was established in 2011 at Courant Institute of Mathematical Sciences NYU, with a mission to develop experimental testbeds and analytics that employ high-dimensional datasets from innovative sources by applying a range of computational and analytical methods to commercial and industrial sensor networks and edge computing embedded systems, focusing primarily on research and development (R&D) of remote and compressed sensing, anomaly detection, forensic analytics and statistical process control.

- ◆ Development of social media analytics pilot projects for select not-for-profit organizations in order to observe quantifiable and scalable metrics that leverage public engagement of diverse messaging employed within campaigns targeting the intersection of grassroots collective action and political influence on critical issues of interest to each organization; pilot to enable organizations to actively explore the effectiveness of various appeals/information campaigns for generating actions of highest interest.
- ◆ Assistant Instructor, *Dynamic Computational Statistical Models for Socioeconomic and Geopolitical Systems*, Courant Institute (2012).
- ◆ Guest Lecturer, *Patent Litigation Simulation*, NYU Law School (2016).
- ◆ Topical research threads: effects of population aging on aggregate consumer demand; structural changes in the composition of consumption spending patterns across generation. Income elasticity of consumption spending on healthcare goods and service; co-evolution of healthcare spending and selected socioeconomic and socio-demographic indicators; regional and socio-demographic variation of income elasticity in healthcare spending.
- ◆ Methodological research threads: time series and longitudinal applications to event history and duration analysis; surveillance and monitoring of NCDs; discrete choice, latent variable and social network analysis of behavioral (sociometric and psychometric) influences on discretionary consumption decisions related to health.
- ◆ **Computational Economics and Algorithmic Data Analytics (CEcADA) Collaborative**
 - ◆ NYU AIG Partnership on Innovation for Global Resilience: Instrumental in establishing this first- of-a-kind interdisciplinary multi-year \$5.5 million research collaboration, as part of an ongoing CEcADA initiative to arrange and coordinate public-private-academic-NGO interdisciplinary research initiatives focused on collaborative academic entrepreneurship applied to societally-scaled solutions for real world systemic issues
 - ◆ NYU Tandon School of Engineering Cyber Security Awareness Week (CSAW): Judging Panel for CSAW Competitions: Hack ML (2019); Policy (2018); Law and Policy (2017); Social Media (2011)
 - ◆ NYU Social Media and Political Participation Lab (SMaPP <https://wp.nyu.edu/smappglobal/>): (2013 - 2018) Associated Researcher, interdisciplinary research collaboration investigating the relationship between social media and political behavior, involving faculty with a range of expertise including political science, economics, econometrics/statistics, social psychology, computational biology, and computer science
 - ◆ NYU Interactive Telecommunications Masters Program (ITP): Judging Panel for Course Final *Towers of Power* Course (2018 and 2017)

EDITORIAL EXPERIENCE

- ◆ Senior Editorial Advisory Board Member, *Journal of Risk Finance* (JRF), Emerald Publications (2005 - 2021), JRF is a quarterly refereed financial services industry journal that provides a rigorous forum for the publication of theoretical and empirical research both by academics and practitioners, relating to the financing of risk in its various forms
- ◆ Managing Editor and Co-Founder, *Journal of Risk Finance*, Euromoney Institutional Investor Journals (1999 - 2004)
- ◆ Special Editor for Risk Management, *Journal of Alternative Investments*, Euromoney Institutional Investor Journals (2005 - 2008)

PUBLICATIONS AND PREPRINTS

- ◆ *Comparative Analysis of Agent-Oriented Task Assignment and Path Planning Algorithms Applied to Drone Swarms* (2021): Rohith G. Ganesan, Samantha Kappagoda, Giuseppe Loianno, and David K.A. Mordecai, [arXiv:2101.05161](#)
- ◆ *Classification of Pathological and Normal Gait: A Survey* (2020): Ryan C. Saxe, Samantha Kappagoda, and David K.A. Mordecai, [arXiv:2012.14465](#)
- ◆ *Energy Disaggregation with Semi-supervised Sparse Coding* (2020): Mengheng Xue, Samantha Kappagoda, and David K.A. Mordecai, [arXiv:2004.10529](#)
- ◆ Emerging Market Credit Derivatives and Default Estimation: Volatility, Business Cycle Correlation and Portfolio Diversification (with D. Mordecai) in Jameson, R. (Ed.), *Credit Derivatives: Applications for Risk Management, Investment and Portfolio Optimisation*, Risk Books, 1998)

ADVISORY ASSIGNMENTS

- ◆ Banc One First Chicago (1995): Econometric Analyses of Fixed Income Asset Markets
- ◆ Central Bank of Canada (1991): Review of Non-Bank Financial Institutions
- ◆ Citibank/Lloyd's Insurance Exchange (1988): Review of Underwriting and Claims Settlement process for Lloyd's Reinsurance Syndicate

SELECTED INVITED PRESENTATIONS

- ◆ Colorado Bar Association, Winning at Trial Seminar/CLE 2021, Invited Panelist *Perspectives from an Expert Witness*
- ◆ Council for Economic Education National Economics Challenge 2021, Invited Panelist
- ◆ InsurTech Alliance (ITA) Quarterly Technology Bootcamps and Annual Expo Presentations, August 2018, January 2019, May 2019, October 2019, January 2020, May 2020, September 2020
- ◆ Barclays Second Annual Digital Leader Series 2019, Invited Speaker
- ◆ University of Toronto Next Steps Conference 2019, Invited Panelist *Entrepreneurship and Innovation*
- ◆ American Bar Association ABA-IPL Annual Meeting and 34th Intellectual Property Law Conference 2019, Invited Panelist *Blockchain & IP Promises and Limitations*
- ◆ NYU Tisch Earth Day 2019, Invited Speaker *The Unwired Forest*
- ◆ University of Toronto Alumni Presentation 2018, Invited Speaker
- ◆ New England Conference of Public Utilities Commissioners (NECPUC) Annual Symposium 2018, Invited Speaker *Mitigating and Managing the Risk of a Cyberphysical Cat Event*
- ◆ Council for Economic Education Vantage Point 2015, Invited Moderator *Growing Companies, Growing Women Leaders*
- ◆ Council for Economic Education/100 Women in Hedge Funds Joint Event 2015, Invited Speaker/Moderator *Economics of Financial Decision Making*
- ◆ American Association of State Compensation Insurance Funds (AASCIF) Annual Conference 2015, Invited Presenter *Workers' Compensation Pilot Projects*
- ◆ WCF Utah Board of Directors Annual Meeting 2015, Invited Presenter *Workers' Compensation Pilots*
- ◆ Reinsurance Association of America (RAA) Current Issues Forum on Supply Chain and Contingent Business Interruption Risk 2014, Panelist *Supply-Chain Risks and CBI (Contingent Business Interruption): Forensic RiskTech for Reinsurers as a Strategic Response to Opportunities and Threats from Disruptive Technology*
- ◆ Society of Casualty Actuaries Conference 2011, Invited Panelist *Harnessing Large Datasets to Navigate the Emerging Risk Landscape*

SELECTED INVITED PRESENTATIONS (CONT'D)

- ◆ HB Litigation (formerly Mealey's) 18th Annual Insurance Insolvency & Reinsurance Roundtable 2011, Invited Panelist *Structural Shocks and Changing Dynamics Related to Emergent Risks, Evolving Health Trends, Demographic Shifts and Labor Markets, Food Insecurity and Food Safety: Implications for Insurers and Reinsurers*
- ◆ Reactions Conference on Insurance Risk and Capital Management 2011, Invited Panelist *How Major Social, Political, and Macroeconomic Uncertainties Can Affect Insurer and Reinsurer Balance Sheets*
- ◆ HB Litigation (formerly Mealey's) 17th Annual Insurance Insolvency & Reinsurance Roundtable 2010, Invited Panelist *Litigation and Regulatory Implications of Environmental, Economic, Life, Health and Casualty Exposures*
- ◆ The 10th Global Alternative Investment Management Forum, 2004, Keynote Panelist and Session Organizer *The Implications of the Preceding, Current, and Future Path of the Global Financial Markets*

SELECTED INDUSTRY CONFERENCES

- ◆ Center for Strategic and International Studies (CSIS), *Artificial Intelligence (AI) and Applications to National Security* 2018 – Invited Participant
- ◆ Day Pitney *Family Office Forum* 2018, Invited Participant
- ◆ Family Office Association Annual New York City Conference 2017, Invited Participant
- ◆ Carnegie Corp./Sloan Foundation: *Transforming Post-Secondary Education in Mathematics*, Invited Participant 2016
- ◆ American Association of State Compensation Insurance Funds (AASCIF) CEO Conference 2015, Invited Participant
- ◆ AASCIF Mid-Year CEO Conference 2015, Invited Participant
- ◆ Santa Fe Institute Business Network Topical Meeting 2012, *Risk: The Human Factor*, Invited Participant
- ◆ Federal Reserve *Day Ahead Conference on Financial Markets & Institutions* (Federal Reserve Bank of Chicago and Federal Reserve Bank of Dallas) 2012, Invited Participant
- ◆ National Academy of Sciences/National Research Council *Summit for Managing Extreme Events* 2011, Invited Participant
- ◆ Division on Engineering and Physical Sciences National Research Council of the National Academies: Board on Mathematical Sciences and their Application, Invited Presenter 2011
- ◆ Federal Reserve *Day Ahead Conference on Financial Markets & Institutions* (Federal Reserve Board of Governors and Federal Reserve Bank of Kansas City) 2011, Invited Participant
- ◆ Pew Charitable Trust/United Healthcare Foundation *Refocusing the Food System*, Invited Participant 2010
- ◆ Santa Fe Institute Annual Business Network and Board of Trustees' Symposium 2009, *Multi Dimensions of Evolution*, Invited Participant
- ◆ Federal Reserve Bank of Atlanta Annual Financial Markets Conference 2009, *Financial Innovation and Crises*, Invited Participant
- ◆ Federal Reserve Bank of Atlanta Annual Financial Markets Conference 2008, *Financial Market Reforms: Taking Stock*, Invited Participant
- ◆ Federal Reserve Bank of Atlanta Annual Financial Markets Conference 2007, *Credit Derivatives: Where's the Risk?* Invited Participant
- ◆ GAIM (Global Alternative Investment Management) Conference 2001, 2002, 2003, 2005, Invited Delegate
- ◆ Commodity Futures Trading Commission Roundtable, *Hedge Funds and Commodity Pool Operators*, 2005, Invited Participant

HONORS AND AWARDS

- ◆ Girl Scouts of Greater New York *Woman of Distinction* 2013, for activities in Science, Technology, Engineering and Mathematics (STEM)
- ◆ Sir Harold Acton Society Award, New York University (philanthropy in STEM and the establishment of RiskEcon® Lab at Courant Institute NYU) 2011
- ◆ *Who's Who in America*, Marquis, various editions since 2000
- ◆ *Who's Who in Finance and Business* (prev. *Who's Who in Finance and Industry*), Marquis, various editions since 2002
- ◆ *Who's Who of American Women*, Marquis, various editions since 2002
- ◆ *Who's Who of Emerging Leaders*, Marquis, 2006
- ◆ *Canadian Who's Who*, University of Toronto Press/Grey Publishing, various editions since 2005
- ◆ Ontario Graduate Scholarship (1991-1992)
- ◆ University of Toronto Open Fellowship (1990-1991)
- ◆ Massey College Junior Fellowship (1990-1991, 1991-1992)

MEMBERSHIPS

- ◆ American Bar Association
- ◆ American Economic Association, American Finance Association, Money Marketeers of New York University, National Association of Business Economists, New York Association of Business Economists
- ◆ American Society of Health Economists, International Health Economics Association
- ◆ American Statistical Association, New York Academy of Sciences, Association for Computing Machinery, IEEE

NOT-FOR-PROFIT ORGANIZATION/BOARD OF DIRECTORS EXPERIENCE

Over twenty-two cumulative years of Board of Directors experience at various not-for-profit organizations. Board committee membership includes DEI, Governance, Strategic Planning, President/CEO search and Board Chair search.

Girl Scouts of Greater New York, Board of Directors (2014 - present)

- ◆ Focus: to establish and foster collaborations with science-based organizations within industry, government and academia in order to expand the GSGNY STEM program portfolio
- ◆ Partnerships established include the National Museum of Mathematics, NYU Tandon School of Engineering, Hudson Highlands Nature Museum and Council for Economic Education
- ◆ Board Committees: Board Leadership, DEIA, Strategic Planning

Black Rock Forest Consortium, Leadership Council (2014 - present)

BRFC Consortium is a 4,000-acre natural living laboratory for field-based scientific research and education, operated by a consortium of twenty-three colleges and universities, public and independent schools, and scientific and cultural institutions. Leadership Council and Carbon Sequestration Committee.

University of Toronto, Lester B. Pearson International Scholarship Committee (2019 – present)

Council for Economic Education, Board of Directors (2014 - 2020)

- ◆ Board Committees: Governance and Nominating, Program and Marketing Committee
- ◆ Judging Panel: Alfred P. Sloan Awards (2015, 2016 and 2017)

Glynwood, Board of Directors (2010 - 2019)

Glynwood's mission is to enable sustainable agriculture and regional food systems by strengthening the supply chain and distribution channels for small- and medium- sized high value-added enterprises across the food and farming value chain.

- ◆ Board Committees: Governance and Nominating (Chair), Strategic Planning, CEO Search Committee

Hudson Valley Shakespeare Festival, Board of Directors (2010 – 2015)

- ◆ Board Committees: Governance and Nominating, Strategic Planning