Short Bio Prof. Dr. Jérôme L. Kreuser (June, 2023)

CEO/Founder of The RisKontrol Group GmbH (research & development, 2000-2013) in Switzerland and RisKontroller Global LLC (2013 – present) in USA
Innovating risk management and strategic asset allocation as a consulting, researching, educating company in Switzerland for 13 years (2000 to 2013) and then as the research, development, implementation company it has become. Dr. Kreuser provides the largest commercial bank in India with reports on predictions for crashes, rallies, and portfolio hedges. He has developed applications and taught in central banks, ministries of finance, pension funds, sovereign wealth funds, (re)insurance companies, hedge funds, fund of funds, etc. He has produced applied models for sovereign wealth fund management for Norway, strategic ALM for the Reserve Bank of India, ALM for Colombia, Brazilian hedge fund, and ALM for reinsurance portfolios. He has lectured to central banks at the Center Gerzensee of the Swiss National Bank. He conducted workshops for seven central banks in South America for FLAR and for the Central Bank of Peru. Also, ran training courses in Kuala Lumpur and Singapore. He speaks at the Joint BIS/ECB/World Bank Public Investors' conferences. He is the editor of the Henry Stewart Talks series on Risk Management for Sovereign Institutions. He has developed software tools and models for the management of asset liability portfolios through dynamic stochastic optimization modeling. These techniques handle millions of variables and stochastic cash flows with as many as 100 separate goals, regrets, and risk constraints to shape multiple outcomes dynamically through time.

Senior Researcher ETH Zurich Risk Center (2014 - 2022)
Research on innovations in bubble models. Developed new techniques for rational bubble models in forecasting the size, probability, and timing of crashes and rebounds. Developed methods and models to mitigate the impact of crashes on portfolios, to advantage rallies, and to improve portfolio returns optimally. He was an advisor and mentor for three PhD candidates.

International Reserves Management Advisor for the IMF (2000-2001)
Under a contract with the International Monetary Fund, he provided on-site expertise (advisory, technical, and training) to the Central Bank of Jordan on reserve management, the development of risk management capabilities, and on sovereign risk including optimal reserves management.

World Bank experience (1974-1998)
He has held several positions at the World Bank during the period from 1974-1998 including head of Modeling Support for Finance and Projects and the head of the Quantitative Analysis Consulting Group, which he initiated. He led a project, funded by the World Bank Research Committee, for developing and applying state-of-the-art tools for asset/liability management in developing countries for central banks and ministries of finance. He has developed and implemented portfolio models, cash flow models, industrial planning models, health sector models, economic models, and other project sector models. He has provided the modeling leadership for several World Development Reports. He has worked on projects in Africa, the Middle East, Latin America, and China. He has also advised the Finance Complex on modeling applications on derivatives and the World Bank pension fund on new analytical techniques. He co-developed and implemented one of the first dynamic asset and liability optimization models under uncertainty for risk analysis that was applied in the World Bank's Treasurer's Department for the management of their fixed income portfolio.

Teaching experience
University of Illinois – Champagne (2014 Fall). Guest Professor for the course on "Stochastic programming models in Finance" for the Master of Science in Financial Engineering.
George Washington University (1982-1998). Adjunct Full Professor of Operations Research. Taught Applications of Linear and Nonlinear Optimization in Economics and Finance and setup modeling lab.
International workshops and talks (1996-present). Regularly prepares and presents workshops/talks on the theory, application, and innovations in financial and economic modeling.

Education
Ph.D. in Mathematical Programming/Numerical Analysis, Masters in Analysis, and B.A. with Honors in Mathematics from the University of Wisconsin.

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Short List of Some Relevant Publications

Kreuser, Jérôme and Didier Sornette (2018). "Bitcoin Bubble Trouble", Wilmott Magazine, May, and at SSRN https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3143750 .

Kreuser, Jérôme and Didier Sornette (2018). "Super-Exponential RE Bubble Model with Efficient Crashes", The European Journal of Finance, Volume 25, 2019 – Issue 4. Also see http://riskontroller.com/ and https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3064668 .

Kreuser, Jérôme (2014). " Risk Management in Public Institutions is Different: Everyone is Different in its Own Way ", March 11, http://riskontroller.com/wp-content/uploads/2016/12/Strategic-ALM-Risk-Center.pdf .

Kreuser, Jérôme and Morton Lane (2013). "ILS Market-Derived Metrics: Finding the Market Transform", in *Alternative (Re)Insurance Strategies*, Risk Books, Edited by Morton Lane; "Best paper of the AAI Colloquium of Lyon 2013."

Kreuser, Jérôme (2012). "Correcting the Financial Crisis Failures of Asset–Liability Management (ALM) Risk Management", in Bob Swarup (ed). *Asset Liability Management for Financial Institutions: Balancing Financial Stability with Strategic Objectives. London, UK:* Bloomsbury Information Ltd, May.

Kreuser, J.L. (ed.), (2012). *Risk Management for Sovereign Institutions: Innovations in strategic risk management for volatile times*, The Marketing & Management Collection, Henry Stewart Talks Ltd, London (online at http://hstalks.com/main/browse_talks.php?father_id=670&c=250)

Bhattacharya, Himadri, Jérôme Kreuser, and Sivaprakasam Sivakumar (2011). "A sovereign asset–liability framework with multiple risk factors for external reserves management—Reserve Bank of India." in *Portfolio and Risk Management for Central Banks and Sovereign Wealth Funds*, Edited by Joachim Coche, Ken Nyholm and Gabriel Petre, Palgrave Macmillian, New York. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3077679

Claessens, Stijn and Jérôme Kreuser (2010). "Strategic Investment and Risk Management for Sovereign Wealth Funds", BIS/ECB/WB Meeting November 2008, in *Central Bank Reserves and Sovereign wealth Management*, edited by Arjan B. Berkelaar, Joachim Coche, and Ken Nyholm, 2010, Palgrave MacMillan, Hampshire, England. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3077626

Claessens, Stijn and Jérôme Kreuser (2007). "Strategic foreign reserves risk management: Analytical framework", in *Financial Modeling*, Annals of Operations Research Volume 152: 79-113, Springer, Netherlands.

Kreuser, Jérôme and Morton Lane (2006). "An Introduction to the Benefits of Optimization Models for Underwriting Portfolio Selection", *Proceedings of the 28th International Congress of Actuaries*, Paris, June,

Claessens, Stijn and Jérôme Kreuser (2004). "A Framework for Strategic Foreign Reserves Risk Management," in *Risk Management for Central Bank Foreign Reserves,* European Central Bank Publication, Frankfurt am Main, May.

Claessens, Stijn, Jérôme Kreuser, and Roger J-B Wets (2000). "Strategic Risk Management for Developing Countries: The Colombia Case Study," Paper presented at the Second Inter-regional Debt Management Conference, UNCTAD, Geneva, April 3-5, 2000.

Claessens, Stijn, Jérôme Kreuser, Lester Seigel, and Roger J-B Wets (1998). "A Tool for Strategic Asset Liability Management," *World Bank Working Paper*, Research Project Ref. No. 681-23, World Bank, Washington, DC, March 12, 1998.