

WILLIAM THOMAS ZIEMBA

June 2020

Alumni Professor of Financial Modeling and Stochastic Optimization, Emeritus, University of British Columbia, Vancouver

and

Distinguished Visiting Research Associate, Systemic Risk Centre, London School of Economics, UK

Education: University of California, Berkeley, Ph.D.(Business Administration), Essays on Stochastic Programming and the Theory of Economic Policy, 1969

Research Areas:

Incentives in Hedge Fund Management
Risk Control of Investment and Hedge Fund Portfolios
Global Asset Allocation
Asset and Liability Management for Insurance Companies, Pension Funds, Wealthy Individuals and Retirement
Stochastic Programming Applications in Finance
Worldwide Security Market Valuation
Portfolio Theory and Management
Programmed Trading
Mathematics of Investment and Gambling
Sports Betting and Insurance
Efficient and Inefficient Security Markets

Option and Warrant Pricing
Arbitrage Theory and Arbitrage Pricing
Dynamic Portfolio Theory and Applications
Financial Planning
Risk Aversion, Risk Measures and Stochastic Dominance
Stochastic Programming Theory
Applications of Mathematical Programming
Japanese and Asian Financial Markets
Land and Stock Prices in Japan and Asia
Japanese Derivative Markets
Energy Policy Modeling
Information Analysis
Financial Market bubble exit and entry strategies

Visiting Professorships (ordered by first visit)

UC, Berkeley, January 1973, January 1978-79

Stanford University, April 1973, 1985

IIASA, Visiting Scholar, Laxenburg, Austria, August 1981; October 1984, September 1997

UCLA, Sept-June 1982

Yamaichi Visiting Professor of Finance, Tsukuba University, Japan, August 1988-July 1989

London School of Economics, Visiting Professor of Finance 1993; Distinguished Visiting Research Associate, Systemic Risk Centre, London School of Economics, UK, 2013-2020

Warwick University, February - March 1993

University of St. Gallen, June 1994

University of Chicago, Spring 1996

National University of Singapore (Cycle and Carriage Chair) September - October 1997

University of Bergamo, October 1997, May 1999, July 2002, May 2004, May, Oct 2006, April 2007, May 2008, June 2009, May 2015, May 2017

Judge Institute of Management Studies, University of Cambridge (Arthur Anderson Chair) January - April 1998

University of Catania, Sicily, May 1999

ISMA Centre, Reading University, April 2000

Imperial College Management School, May-June 2000, Business School, June 2009

University of Cyprus May 2001, March-April 2012

Helsinki School of Economics, September 2002

Oxford University, Math Institute, July 2002, March 2004, 2005, Jan-Feb 2006, 2007, 2008, March 2009, 2010

Oxford University, St. Catherine's College, Nomura Visiting Professor of Mathematical Finance, , January-June 2003

University of Zurich, Swiss Banking Institute , June 2003, June-July, 2003, Nov 2006, June 2008, March 2011, Nov 2012, June 2013, Sept-Oct 2017, July 2019

Massachusetts Institute of Technology, Visiting Professor of Finance, January-June, 2005

University of Washington, Visiting Professor of Statistics, Seattle, November 2005

University of Reading, Visiting Professor of Finance, ICMA, February, March 2007, 2008, 2009, 2011-13 (Regular 20% Professor for 2011-2014)

EDHEC, Nice, March 2006

Luiss Guido Carlo University, Rome, April-May 2006 and 2007, October 2009, and May 2012

University of Edinburgh, Mathematics Department, March 2007

University of Toulouse, Visiting Professor of Economics, May-June 2009

NTU, Business School, Singapore, April-May 2009

Sabanci University, Istanbul, June 2010, June 2011, June 2012, June 2013

University of Manchester, Hallsforth Visiting Professor of Finance, Nov 2012

Presentations at Universities

2019 Technical University of Munich, University of Zurich

2018 University of Calgary

2017 Imperial College, University of Florence, Concordia University, University of Toronto Fields Institute, University of Zurich

2016 Campus for Finance (WHU, Germany)

2015 University of Bergamo, London School of Economics, Zayed University, Chinese Academy of Science

2013 University of Sussex, University of Reims, Steklov Institute (Moscow), London School of Economics, Ketch Business School, Bordeaux, Koç University

2012 University of Cyprus, Luiss Guido Carli University, Korean Advanced Institute of Science and Technology, Financial Engineering (Taejan) and Business School (Seoul), University of Manchester

2011 Korean Advanced Institute of Science and Technology, Financial Engineering (Taejan) and Business School (Seoul), Stanford University, Koç University

2010 University of Economics, Stanford University Campus for Finance (WHU, Germany), Oxford University, Dalhousie University, University of Rome, University of Zurich, University of Reims

2009 Oxford University, ICMA Centre, University of Reading, Nanyang Technical University,

2008 Oxford University, ICMA Centre, University of Reading, University of Zurich, University of, University of Venice, University of Firenze, Dalhousie University

2007 Universities of Bergamo, Dalhousie, Chicago, Warwick, Reading, Oxford, Edinburgh, Wollongong (Australia), Southwestern (Chengdu, China)

2006 European Central Bank, Oxford University, University of Bergamo, London Business School, University of Verona, University of Venice, University of Zurich, Behang University (Beijing)

2005 University of Florida, Free University of Bolzano, University of Louisville, University of Washington (Statistics), ETH-Zurich, University of Zurich Economics and Finance; and second talk to Operations Research, University of Washington (IE Dept)

2004 Campus for Finance (WHU, Germany), Stanford University, Oxford University, Princeton University, University of Bergamo, Peoples' University of China, Beijing and University of Colorado

- 2003 London School of Economics, Helsinki School of Economics, Said Business School, Mathematical Finance Seminar, Stochastic Analysis Seminar and Differential Equations Seminar, Oxford University, Mathematical Finance and Stochastic Analysis Seminars Humboldt University, University of Zurich, University of Bergamo, and ETH-Zurich University
- 2002 Helsinki School of Economics, Imperial College, University of Southampton, Ecole Polytechnic, University of Bergamo and London School of Economics
- 2001 Princeton University, UCLA and University of Arizona
- 2000 and previous years
Stanford, Yale, Michigan, Yale, Chicago, Cornell, London Business School, Trinity College (Dublin), Cambridge, Oxford, NYU, Harvard, Berkeley, Zurich, St Gallen, Venice, Vienna, Bergamo, Hong Kong, Singapore, and others
- See also listing of institutional investor talks and academic seminars 1989-2019.

Academic or Professional Awards:

- Seagram-Bronfman Business Faculty Research Fellow, 1972-73
Canadian Council Leave Fellowship, 1978
Social Sciences & Humanities Research Council Leave Fellowship, 1984
Co-winner of Second Prize 1993 Franz Edelman Award for the Practice of Management Science with research team from the Frank Russell Company for The Russell-Yasuda Asset-Liability Management Model
Gold medal for contributions to Financial Modeling, Technical University of Crete, 1996
Faculty of Commerce: Research Prize for Practice, 1998
Named one of the ten pioneers who helped develop the field of stochastic programming at the 10th International Conference on Stochastic Programming, Tucson, Arizona, October 2004
Winner Battle of the Quants Futures Contest 2015 in New York

Referee for professional journals:

Management Science: Theory; Management Science: Application; SIAM Journal; SIAM Review; U.B.C. Journal of Business; Operations Research; Opsearch; INFOR; Mathematics of Operations Research; Utilities Mathematica; Journal of Industrial Engineering; Journal of Optimization Theory and Applications; Journal of Financial and Quantitative Analysis; Journal of Finance; Mathematical Programming; Economic Inquiry; OMEGA; Economic Journal; International Review of Financial Analysis; Contemporary Policy Issues, American Economic Review, Applied Mathematical Finance, Journal of Economic Dynamics and Control, Manchester Quarterly, Journal of Political Economy, Annals of Operations Research, Interfaces, Journal of Futures Markets, Economica, Financial Analysts Journal, Journal of Banking and Finance, Quantitative Finance, and American Mathematical Monthly

Referee for book publishers:

Academic Press, Inc., Holden-Day, Harper and Row Inc., Holt Rinehart Winston Inc., John Wiley and Sons Inc., Basil Blackwell, Kluwer Publishers, Baltzer Science Publishers, Cambridge University Press and Princeton University Press

Referee for tenure and promotion cases:

Brandeis, University of Chicago, Harvard, Tel-Aviv University, Stanford, University of Florida, University of Ottawa, New York University, Technion, Yale, the University of California, Berkeley, the Hebrew University, the University of Missouri, St. Louis, Santa Clara University, University of Wisconsin, University of Hong Kong, Canterbury University, Australian National University, University of Sydney, University of Pennsylvania, Southern Methodist University, Simon Fraser University, University of Woolagong (New Zealand), the London School of Economics, Dalhousie University, University of Waterloo, Clemson University, Princeton University, Rutgers University, Bilkent University, National University of Singapore, University of Florida, Cass Business School, KAIST in Korea

Program Advisor:

Financial Studies Graduate Program at HSB - Nowy, Sacz, Poland; Inaugural lecturer, October 1998

Banking Institute, University of Cyprus, 1996-2012
 Financial Engineering Centre, National University of Singapore, 1999 –
 RBC Centre for Risk Management, Dalhousie University, 2004-

Editorships:

CORS-INFOR, Editor, January 1979-July 1981.

Co-Editor, July 1981- September 1982.

Management Science, Department of Finance

Associate Editor, September 1980-November 1982

Departmental Editor, November 1982 - September 1992

The department had eleven associate editors and handled about 50 papers a year. A special issue of the Journal on financial modelling jointly edited with Stavros Zenios of the Wharton School appeared in November 1992.

Series Editor

Handbooks in Finance, North Holland-Elsevier 1999 – WTZ co-edited three of the 11 handbooks produced in the series during 2006-2013, These include handbooks on *Heavy Tailed Distributions in Finance* edited by S.T. Rachev, 2003 and *Asset and Liability Management, Volume 1: Theory and Methodology* 2006 and *ALM, Volume 2: Applications and Case Studies, 2007* edited by S.A. Zenios and W.T. Ziemba,, *Equity Risk Premium* edited by R. Mehra 2007, *Empirical Corporate Finance, Vol 1, 2007* edited by E. Eckbo and *Financial Intermediation and Banking* edited by A.V. Thakor and A.W.A. Boot, 2008. D.B. Hausch and W.T. Ziemba, *Sports and Lottery Markets*, Y. Ait-Shalia and L. Hansen, 2011) *Financial Economics* (2 volumes), and T. Hansen and K. Shenk-Hoppe (2011) *Financial Markets, Dynamics and Evolution*

Advisory Editors: Kenneth J. Arrow, Stanford University, George C. Constantinides, University of Chicago, B. Espen Eckbo, Dartmouth College, Harry M. Markowitz, University of California, San Diego, Robert C. Merton, Harvard University, Merton Miller, University of Chicago, Stewart C. Myers, Massachusetts Institute of Technology, Paul A. Samuelson, Massachusetts Institute of Technology, and William F. Sharpe, Stanford University

Handbooks in Financial Economics, World Scientific 2009 – This series of 10-30 volumes succeeds, with minor changes, the North Holland Elsevier series with no repeats.

Ten handbooks have been published or are under contract including Leonard C MacLean, E O Thorp and W T Ziemba (eds) *The Kelly capital growth criterion: theory and practice*, 2010 (hardback) and 2011 (paperback); *Handbook on the fundamentals of financial decision making* in two volumes, 2013, edited by Leonard C. MacLean and W. T. Ziemba and *Handbook of Futures Markets* (with T. Mallaris) in 2015, *Handbook on the Economics of Wine, 2 volumes*, edited by O. Ashenfelter, O. Gergaud, K. Storchmann and W T Ziemba in 2018, *Memorial Handbook for Marida Bertocchi* (Rita D'Eclesia, Stavros Zenios and William Ziemba, eds) in 2019 and *Handbook of Investment Strategies* (with John D. Guerard).

Advisory Editors: Kenneth J. Arrow, Stanford University, George C. Constantinides, University of Chicago, B. Espen Eckbo, Dartmouth College, Robert C. Merton, MIT, Stewart C. Myers, MIT.

Books in Finance, World Scientific 2009 – This series of books is intended to provide up to date presentations of key topics in finance through single and multiple authored monographs, collected works of noted scholars, surveys of defined subfields of finance, research reference volumes written or edited, textbooks and other publications. Twelve books are now published or are under contract, including B28, B29, B30, B31, B34 that I was involved with.

Advisory Editors: Greg Connor, National University of Ireland, Maynooth, George Constantinides, Booth Graduate School of Business, University of Chicago, Espen Eckbo, Tuck School of Business, Dartmouth College, Hans Föllmer, Humboldt University, Christian Gollier, Toulouse School of Economics, Thorsten Hens, University of Zurich, Robert Jarrow, Cornell University, Hayne Leland, Haas School of Business, UC Berkeley, Haim Levy, Hebrew University, John Mulvey, Princeton University, Marti Subrahmanyam, Stern School of Business, NYU

Consultant to:

Yamaichi Research Institute, Tokyo, August 1988-December 1989, on worldwide security market anomalies and portfolio strategy

Edward O. Thorp and Associates, on Global Investment Strategies, December 1990-1996

Gordon Capital Corporation, on Global Investment Strategies, 1990-91

Frank Russell Company, on Global Asset Allocation and Portfolio Management Research, June 1989-April 1998. Main consultant to the research department, replacing Bill Sharpe.

Buchanan Partners, on Global Investment Strategies, London, England, March 1992 - April 1994

Morgan Stanley, New York, on U.S. and global investment strategies, March 1993

Market Research, Nassau, Bahamas, October 1996 – July 2000

Credit Swiss First Boston, London, December 1999

Innovest (Siemens Austria Pension Plan), Vienna, December 1999- July 2001

Gruppo Uni Credit, Milan, January, 1999- July 2001

SCA Insurance, Dallas on sports insurance guarantees, August 2001-March 2006

ORS, Alba, Italy, August 2000 – 2005

Mansion on lottery strategies, January 2004-2010

IS Partners, Zurich, October 2005-January 2006

RAB Capital, Hedge Funds, London, February 2006 to March 2007

Canyon Capital Advisors, LLC, Los Angeles, February 2007

Matcap, 2009-2018 Investment strategies

Betfair, 2010-2013 Theory of investing

Ibis Management LLC, Investment strategies February-August 2010

Fidelity Investments, Boston, Investment strategies August 2011

Ketchum Capital, Chicago, Investment strategies March 2012 - April 2018

Expert witness for Hong Kong legal court cases, 2014 -

Hong Kong racetrack betting modelling, 2016-19

RESEARCH ACTIVITIES**Cluster Chair**

Co-organizer, Stochastic Optimization Session in Finance, Bonn Workshop, May 27-29, 2013

Session on Stochastic Programming Models in Finance, 12th International Conference on Stochastic Programming, Halifax, August 2010

Session, Banking, Risk management and Credit Risk, International Risk Management Conference, Florence, Italy, June 2010

Sessions on Capital Growth Theory and Practice, XI International Conference on Stochastic Programming, Vienna, August, 2007

Finance and Economics Sessions, 19TH Mathematical Programming Society Meeting, Rio de Janeiro, Brazil, July-August 2006