CAROL OLIVIA ALEXANDER

HOME ADDRESS
Naldretts, Mill Lane,
Hurstpierpoint, Sussex, BN6 9HL

WORK ADDRESS
School of Business, Management and Economics
Jubillee Building
University of Sussex

EDUCATION

1976	B.Sc. (Sussex) in Mathematics with Experimental Psychology (First Class)
1980	Ph.D. (Sussex) in Algebraic Number Theory (Supervised by Walter Ledermann)
1985	M.Sc. (LSE) in Mathematical Economics and Econometrics

APPOINTMENTS

1977 – 1978	Editor, John Wiley (one year interim PhD research)
1981 – 1982	Postdoctoral Research Fellow, University of Amsterdam
1982 – 1983	Bond Analyst, UBS Phillips and Drew, London
1983 – 1985	Teaching and Research Assistant, London School of Economics (part-time)
1985 – 1996	Lecturer in Mathematics and Economics, University of Sussex
1996 – 1998	Lecturer in Mathematics, University of Sussex (part-time)
1996 – 1998	Academic Director, Algorithmics Inc., London (part-time)
1998	Director, Head of Market Risk Modelling, Nikko Securities, London
1988 – 1999	Visiting Research Fellow, Oxford Centre for Industrial and Applied Mathematics
1999 – 2012	Chair of Financial Risk Management, ICMA Centre, Henley Business School
2012 – now	Professor of Finance, University of Sussex
	Head of Business and Management, Managerial Role, Jan 2013 – Dec 2014

GRANTS

1981	Leverhulme Foundation, post-doctoral research grant, University of Amsterdam
1986	Nuffield Foundation, award for new lecturers in science, University of Sussex
1994	ESRC, research grant for time series analysis in financial markets
2003	Foundation for Managed Derivatives Research, grant for research into hedge funds
2003	British Academy, research grant (with S. Burke, Henley Business School)
2005	Australian Prudential Regulatory Authority, research grant (with E. Sheedy, Macquarie)
2008	Europlace Institute of Finance, research grant (with S. Ohana, ESCP-EAP)
2014	Global Risk Institute (with Andreas Kaeck)

HONOURS, PATENTS and AWARDS

1996	Winner, First International Non-Linear Financial Forecasting Competition (with Ian Giblin)
2002	Honorary Professorship, Academy of Economic Sciences, Bucharest
2003	International Financial Risk Institute (IFRI), 9th roundtable award
2007	Professional Risk Managers International Association (PRMIA) Higher standard award (joint with Prof. Robert Merton)
2009	U.S. Patent Number 7,571,130: Hedging exchange traded mutual funds or other portfolio basket products google.com/patents/US20030233302
2010	University award for Outstanding Contributions to Teaching and Learning
2011	U.S. Patent Number 7,979,336: A system for pricing financial instruments google.com/patents/US7979336

EXTERNAL ACADEMIC ACTIVITIES

1999 – 2000	Visiting Research Fellow, OCIAM, Oxford University
2002 – 2012	Council and Board positions with PRMIA (details overleaf)
2003 – 2006	Expert Witness, Richards Butler, London
2007 – 2009	Editorial Board, Journal of Banking and Finance
2011 – 2013	Editorial Board, Journal of Investment Strategies
2007 – now	Editorial Board, Journal of Portfolio Management
2011 – now	External Assessor, PhD Programme in Economics and Finance, St. Gallen University
2011 – 2013	Member of CFA Advisory Council
2013 – now	Managing Editor (with Prof. Geert Bekaert) of Journal of Banking and Finance
2018	John von Neumann Chair, Technical University of Munich

Selected keynotes at professional conferences

2003	9th Annual Round Table of the International Financial Risk Institute (IFRI, London)
2003	1st International Congress on Financial and Derivatives Markets, (BM&F, Brazil)
2007	Risk and Return Russia, (Incisive Media, Moscow)
2009	Quant Congress USA (Incisive Media, New York)
2010	Changing Risk Landscape, Financial Times (London)
2012	PRMIA 10th Anniversary Global Risk Conference (New York)
2012	Royal Institution (London), 14-10 Club for Quant Finance Professionals
2016	KPMG Chair Address to Heads of Risk Management, Frankfurt
2017	Fourth Conference on Non-linear Dynamics and Financial Markets, Paris
2018	Fifth International Symposium in Computation Economics and Finance
2018	EURO2018: 29th Annual European Conference of Operational Research Societies

Selected plenary talks at academic conferences

2003	New Directions in Risk Management, Frankfurt
2004	German Finance Association 9th Annual Congress, Augsburg
2004	Campus for Finance, Germany
2005	Quantitative Methods in Finance Conference, Sydney
2008	3rd Annual Mathematics in Finance International Conference, Kruger, South Africa
2010	HVB-Institute for Mathematical Finance, Munich
2011	Campus for Finance, Germany
2012	9th Applied Financial Economics Conference, Greece
2013	Fields Institute, Toronto, Canada
2018	OR60: 60th Anniversary Conference of UK Operational Research Society

Selected workshops, seminars and conferences

2009/8/7	Quant Congress Europe (London)
2010	FOW Derivatives World (London), Post-Crisis Risk Measurement (CFA UK)
2011	Model Risk Validation (Paris)
2010/11/12	PRMIA webinars (Global)
2013	Simulation workshop, Bolzano, Italy
2013	African Institute of Mathematical Sciences, Cape Town
2015	Bachelier Mathematical Finance World Congress, New York

Selected refereeing

Journal of Banking and Finance, Financial Analysts Journal, Finance and Stochastics, Quantitative Finance, Journal of Portfolio Management, Journal Futures Markets, Journal Economic Dynamics and Control, Journal Applied Econometrics, Journal Financial Econometrics, Journal of Business Finance and Accounting, International Journal of Theoretical and Applied Finance, European Financial Management, Annals of Econometrics, Applied Mathematical Finance, Journal of Alternative Investments, Applied Financial Economics, European Journal of Finance, Finance Letters, European Journal of Operational Research, Review of Finance

PhD Examining

2008	External Examiner	Imperial College Student of Mark Davis
2009	External Examiner	University Paris-Dauphine Student of Helyette German
2015	External Examiner	University of Cambridge Student of Andrew Harvey

INDUSTRY LINKS

Consultancy

1990 – 1991	First generation GARCH models, Hill Samuel Bank, London
1992	Volatility trading models, Equitable House Investments, London
1994 – 2003	Hedge-fund software design, Pennoyer Capital Management, New York
1996 – 1997	Spot-futures arbitrage models, EDF Man, London
1996	Internal value-at-risk model implementation, Shell Pension Fund, Netherlands
1997 – 1998	Orthogonal GARCH models, Robert Fleming, London
2001 – 2007	High frequency pricing and hedging of active exchange traded funds, NYSE Amex LLC, New York
2007 – 2008	Risk Research Advisor, SAS International
2009 – 2010	Value-at-risk model design, Credit Agricole Asset Management, London
2012 – 2013	Tindeco Asset Management, Zurich
2012 – 2014	Model validation, ICE Clear Europe
2015 – 2016	Real options decisions, DTSL

Professional Risk Manager's International Association (PRMIA)

2002 – 2009	Founding Chair of the Academic Advisory Council
2003 – 2004	Produced Professional Risk Manager's Handbook (with E. Sheedy, Macquarie)
2007	Recipient of Higher Standard Award (with Robert Merton)
2009 – 2012	Board Member
2010 – 2012	Chair of Board
2011	Founding Editor of Intelligent Risk prmia.org/irisk

TEACHING

1985 – 1998	**Lecture Courses**	**University of Sussex**
	Econometrics, PG	Economics Group
	Maths for Economists, 2yr UG	Economics
	Maths for Biologists, 1yr UG	Mathematics
	Group Theory, 2yr UG	Mathematics
	Linear Algebra, 1yr UGe	Mathematics

1985 – 1998	**Seminars and Workshops**	**University of Sussex**
	Microeconomics, 2yr UG	Economics
	Macroeconomics, 2yr UG	Economics
	Statistics, 2yr UG	Mathematics
	Game Theory, PG	Mathematics

2000 – 2012	**MSc Lecture Courses**	**University of Reading**
2000 – 2004	Market Risk	Henley Business School
2004 – 2011	Volatility Analysis	Henley Business School
2005 – 2012	Quantitative Methods for Finance	Henley Business School

2012 – now	**MSc Lecture Courses**	**University of Sussex**
2012	Topics in Finance	Mathematics
2012	Hot Topics in Finance	Business & Management
2013 – 2016	Essential Quantitative Finance	Business & Management
2015 – now	Advanced Quantitative Finance	Business & Management
2016 – now	Financial Risk Management (3rd Year UG)	Business & Management

INTERNAL ADMINISTRATION

1985 – 1999 Convenor of BSc/BA Degrees — **University of Sussex**

Mathematics with Economics
Mathematics and Economics
Economics with Mathematics

2005 – now Convenor of MSc Degrees — **ICMA Centre**

Introduced first UK MSc in Financial Risk Management
Obtained PRM accreditation: joint-first MSc programme globally
Introduced and marketed Financial Engineering MSc

2005 – 2006 Convenor MSc Research Projects — **ICMA Centre**

Wrote extensive student handbook
Developed LMS site. Supervisor allocation and student support

2005 – now Elite Postgraduate Exchange — **ICMA Centre-TU Munich**

Student exchange with HVB-Institute for Mathematical Finance
Initiated and administered programme

2000 – 2008 Director of Research — **ICMA Centre**

Established ICMA Centre finance research reputation worldwide:

Introduced and disseminated electronic discussion paper series
Introduced weekly research seminars
Developed research strategy and plan
Management of website research section

2010 – 2012 Director of Enterprise — **ICMA Centre**

Development of industry links
Research funding and student placements

2013 – 2014 Head of Business and Management — **University of Sussex**

Managing department with 70+ faculty in period of rapid growth

PhD SUPERVISION

Further details: carolalexander.org/phd_students.php

2004	Ali Bora Yigitbasioglu	Defaultable Convertible Bonds with Volatility Uncertainty and Call Notice Periods
	Senior Portfolio Manager, Cambridge Strategy, Monaco	
2004	Anca Dimitriu	Portfolio Optimization Models for Traditional and Alternative Investments
	COO, Quant Strategies, Balyasny Asset Management L.P., London	
2005	Dmitri Lvov	Pricing Convertible Bonds and Bermudan Swaptions by Monte Carlo Simulation
	Executive Director, Commodities Quant Research, JP Morgan, London	
2006	Leonardo Nogueira	Pricing and Hedging Options with Local and Stochastic Volatility Models
	Head of the Deputy Governor's Office for Monetary Policy, Brazilian Central Bank	
2006	Emese Lazar	Multi-State Volatility Models: Theory and Applications
	Associate Professor in Finance, ICMA Centre, Henley Business School at Reading	
2007	Andreza Barbosa	Pricing and Hedging Exchange Traded Funds
	Executive Director, Model Risk Management, Goldman Sachs, London.	
2008	Naoufel El Bachir	Stochastic Default Intensity Modeling with Dependent Jump Processes
	Quantitative Analyst, CIBC World Markets, London	
2008	Aanand Venkatrammanan	Multi-Asset Option Pricing
	VP Systematic Trading Strategies and Indices, Barcap, London	
2010	Joydeep Lahiri	Jump Diffusions for Modelling Default Intensity
	Risk, Attribution and Performance, RWC, London	
2010	Stamatis Leontsinis	Model-Free Moment Indices
	Research Director, Quantitative Derivative Strategies, CdR Capital Ltd, London.	
2010	Silvia Stanescu	Analytic Moments for GARCH Processes
	Quantitative Analyst, Cantab Capital Partners	
2010	Andreas Kaeck	Equity Index and Index Derivative Dynamics
	Professor of Finance, University of Sussex	
2010	Daniel Ledermann	Random Orthogonal Matrix Simulation
	Senior Quantitative Analyst, HSBC, London	
2012	Dimitris Korovilas	Trading Volatility
	Structurer, Citi, London	

2013	Julia Kapraun (Visiting) Assistant Professor in Finance, WHU, Germany	Volatility Investments
2014	Annanit Sumawong Quantitative Analyst, GAM, Asset Management, London.	Trading and Hedging Energy Futures
2014	Xi Chen Senior Researcher, Oxford Risk	Real Options and Decisions in Corporate Finance
2015	Johannes Rauch Senior Analyst, Oliver Wyman, London	Higher Moment Risk Premia and Discretization Invariance
2016	Yang Han Ongoing, University of Sussex	Factor Model Quantile Simulation
2016	Michael Dakos Ongoing, University of Sussex	Cryptocurrency Markets

INTERNATIONAL UNIVERSITY LINKS

2005 – now MSc Student Exchange — **TU Munich**

Supervision of finance thesis and research papers for 1 or 2 'Elite' MSc students per year
Collaboration with Professor Rudi Zagst, Chair of Mathematical Finance, TU Munich

2008 – 2011 — **ESCP-EAP, Paris**

Joint-holder of Europlace Institute of Finance grant for research into emissions and energy markets with Steve Ohana, Associate Professor ESCP-EAP

2010 – 2011 Academic Visitor — **University of Cantabria, Spain**

Research collaboration with Jose Maria Sarabia, Professor of Statistics, Department of Economics

2011 External Assessor — **St. Gallen University, Switzerland**

Finance assessor for teaching quality on Ph.D. Program in Economics and Finance
– with Bo Honore (Economics) and Yacine Ait-Sahalia (Econometrics) both of Princeton University

2012 — **Trondheim University, Norway**

Norwegian national PhD student summer school: New Directions in Quantitative Finance Research
Collaboration with Prof. Sjur Westgaard, Norwegian University for Science and Technology
Norwegian national research school in business economics and administration http://nfb.nhh.no

2016 KPMG Chair — **Frankfurt/Munich**

For research at the Chair of Mathematical Finance at TU Munich
and collaboration (in Frankfurt) with Heads of Risk Management of all main German banks
on visions for 'Forensic' Risk Management

2018 John von Neumann Chair of Mathematics — **TU Munich**

For teaching and research at the Chair of Mathematical Finance at TU Munich

2018 Visiting Professor — **La Sapienza University, Rome**

For joint research on the diamond market with Prof. Rita D'Ecclesia

PUBLICATIONS

Downloadable versions: carolalexander.org/academic_journals.php

Refereed Academic Journal Articles

1. Leontsinis, S., and C. Alexander (2017) 'Arithmetic variance swaps' Quantitative Finance, 17(4), 551-569.
2. Alexander, C., Korovilas, D. and J. Kapraun (2016) 'Diversification with volatility products' Journal of International Money and Finance, 65, 213-235
3. Alexander, C., J. Kapraun and Korovilas, D. (2015) 'Trading and investing in volatility products' Financial Markets, Institutions and Instruments, 24(4), 313-347
4. Alexander, C., Lazar, E. and S. Stanescu (2013) Forecasting VaR using analytic higher moments for GARCH processes International Review of Financial Analysis 30, 36-45
5. Kaeck, A. and C. Alexander (2013) Stochastic volatility jump-diffusions for European equity index dynamics. European Financial Management 19(3), 470-496
6. Alexander, C. and D. Korovilas (2013) Volatility exchange-traded notes: Curse or cure? Journal of Alternative Investments 15(2), 52-70
7. Kaeck, A. and C. Alexander (2013) Continuous-time VIX dynamics: On the role of stochastic volatility of volatility. International Review of Financial Analysis 28, 45-46
8. Alexander, C., Propoczuk, M. and A. Sumawong (2013) The (de)merits of minimum-variance hedging: Application to the crack spread. Energy Economics 36, 698-707
9. Ledermann, D. and C. Alexander (2012) Further properties of random orthogonal matrix simulation. Mathematics and Computers in Simulation 83, 56-79
10. Kaeck, A. and C. Alexander (2012) Volatility dynamics for the S&P 500: Further evidence from non-affine, multi-factor jump diffusions. Journal of Banking and Finance 36(11), 3110-3121
11. Alexander, C. and J-M. Sarabia (2012) Quantile uncertainty and value-at-risk. Risk Analysis: An International Journal 32(8), 1293-1308
12. Alexander, C., Cordeiro, G., Ortega, E. and J-M. Sarabia (2012) Generalized beta generated distributions. Computational Statistics and Data Analysis 56(6), 18801897
13. Alexander, C. and A. Venkatramanan (2012) Analytic approximations for multi-asset option pricing. Mathematical Finance 22(4), 667-689
14. Alexander, C. and A. Kaeck (2012) Does model fit matter for hedging? Evidence from FTSE 100 options. Journal of Futures Markets 32(7), 609638
15. Alexander, C., A. Rubinov, M. Kalepky and S. Leontsinis (2012) Regime-dependent smile-adjusted delta hedging. Journal of Futures Markets. 32(3), 202-229
16. Venkatramanan, A. and C. Alexander (2011) Closed-form approximations for spread options. Applied Mathematical Finance. 18(5), 447-472
17. Ledermann, W., Alexander, C. and D. Ledermann (2011) Random orthogonal matrix simulation. Linear Algebra and its Applications, 434, 1444-1467
18. Alexander, C. and E. Lazar (2009) Modelling regime-specific stock price volatility. Oxford Bulletin of Economics and Statistics, 71:6, 761 - 797
19. Alexander, C., A. Kaeck and L. Nogueira (2009) Model risk adjusted hedge ratios. Journal of Futures Markets, 29:11, 1021-1045
20. Alexander, C. and E. Sheedy (2008) Developing a stress testing framework based on market risk models. Journal of Banking and Finance, 32:10, 2220-2236
21. Alexander, C. and A. Kaeck (2008) Regime dependent determinants of credit default swap spreads. Journal of Banking and Finance, 32:6, 1008 - 1021.

22. Alexander, C. and A. Barbosa (2008) Hedging exchange traded funds. Journal of Banking and Finance, 32:2, 326-337

23. Alexander, C. and L. Nogueira (2007) Model-free price hedge ratios for homogeneous claims on tradable assets. Quantitative Finance, 7:5, 473 - 479

24. Alexander, C. and A. Barbosa (2007) Effectiveness of minimum variance hedging. Journal of Portfolio Management, 33:2, 46 - 59

25. Alexander, C. and L. Nogueira (2007) Model-free hedge ratios and scale-invariant models. Journal of Banking and Finance, 31:6, 1839-1861

26. Yigitsbasioglu, A. and C. Alexander (2006) Pricing and hedging convertible bonds: delayed calls and uncertain volatility. International Journal of Theoretical and Applied Finance, 9:2, 415-437

27. Alexander, C. and E. Lazar (2006) Normal mixture GARCH 1,1 : applications to foreign exchange markets. Journal of Applied Econometrics, 21:2 307-336

28. Alexander, C. and A. Dimitriu (2005) Rank alpha funds of hedge funds. Journal of Alternative Investments, 8:2, 48-61

29. Alexander, C. and A. Dimitriu (2005) Detecting switching strategies in equity hedge funds returns. Journal of Alternative Investments, 8:1, 7-13

30. Alexander, C. (2005) The present and future of risk management. Journal of Financial Econometrics, 3:1, 3-25

31. Alexander, C. and A. Barbosa (2005) The spider in the hedge. Review of Futures Markets, 11:1, 89-113

32. Alexander, C. and A. Dimitriu (2005) Indexing and statistical arbitrage: tracking error or cointegration? Journal of Portfolio Management, 31:2, 50-63

33. Alexander, C. and A. Dimitriu (2005) Indexing, cointegration and equity market regimes. International Journal of Finance and Economics, 10, 213-231

34. Alexander, C. and A. Scourse (2004) Bivariate normal mixture spread option valuation. Quantitative Finance, 4:6 1-12

35. Alexander, C. (2004) Normal mixture diffusion with uncertain volatility: modelling short and long term smile effects. Journal of Banking and Finance, 28:12, 2957-2980

36. Alexander, C. and A. Dimitriu (2004) Sources of out-performance in equity markets: common trends, mean reversion and herding. Journal of Portfolio Management, 30:4, 170-185

37. Alexander, C. and A. Dimitriu (2004) Equity indexing: optimising passive investments. Quantitative Finance, 4:3 C30 - C33

38. Alexander, C. (2002) Principal component models for generating large covariance matrices. Review of Banking, Finance and Monetary Economics, Economic Notes, 31:2, 337-359

39. Alexander, C., I. Giblin and W. Weddington (2002) Cointegration and asset allocation: a new active hedge fund strategy. Research in International Business and Finance, 16, 65-90

40. Alexander, C. (2000) Measuring operational risks with Bayesian belief networks. Derivatives, Use Trading and Regulation. 6:2, 166-196

41. Alexander, C. (1999) Optimal hedging using cointegration. Philosophical Transactions of the Royal Society Series A, 357, 2039-2058

42. Alexander, C. and C. Leigh (1997) On the covariance matrices used in value-at-risk models. Journal of Derivatives, 4:3 50-62

43. Alexander, C. and I. Giblin (1996) Multivariate embedding methods: forecasting high-frequency data in the first international non-linear financial forecasting competition. Journal of Computational Intelligence in Finance, 5:6, 17-24
44. Alexander, C. and W. Ledermann (1996) Are Nash bargaining wage agreements unique? An investigation into bargaining sets for firm/union negotiations. Oxford Economic Papers, 48:2, 1-11
45. Alexander, C. and J. Wyeth (1996) Causality testing in models of spatial market integration. Journal of Development Studies, 32:1, 144-146
46. Alexander, C. (1996) Evaluating the use of RiskMetrics as a risk measurement tool for your operation. Derivatives: Use Trading and Regulation, 2:3, 277-285
47. Alexander, C. and H. Rendall (1995) Data generation processes of spatial series: Analysis of ephemeral channel form. Geographical Analysis, 27:1, 78-93
48. Alexander, C. (1995) Common volatility in the foreign exchange market. Applied Financial Economics, 5:1, 1-10.
49. Alexander, C. and J. Wyeth (1994) Cointegration and market integration: an application to the Indonesian rice market. Journal of Development Studies, 30:2, 303-308
50. Alexander, C. and M. Barrow (1994) Seasonality and cointegration of regional house prices in the UK. Urban Studies, 31:10, 1667-1689
51. Alexander, C. and W. Ledermann (1994) The constrained Nash bargaining solution. Journal of the Operational Research Society, 45:5, 954-958
52. Alexander, C. (1993) The changing relationship between productivity, wages and unemployment in the U.K. Oxford Bulletin of Economics and Statistics, 55:1, 87-102
53. Alexander, C. and A. Johnson (1992) Are foreign exchange markets really efficient? Economics Letters, 40, 449-453
54. Alexander, C., I. Giblin and D. Newton (1992) The symmetry of fractals. Mathematical Intelligencer, 14:2, 32-34
55. Alexander, C. (1992) The Kalai-Smorodinsky bargaining solution in wage negotiations. Journal of the Operational Research Society, 43:8, 779-786
56. Alexander, C. (1988) On a converse to the Tschebotarev density theorem. Journal of the Australian Mathematical Society Series A, 44, 287-293
57. Alexander, C. (1987) Duality in non-normal quartic fields. American Mathematical Monthly, 94, 279-284
58. Alexander, C. and W. Ledermann (1985) Integral bases of dihedral number fields. Journal of the Australian Mathematical Society Series A, 38, 351-371

Authored Books

See marketriskanalysis.com for further details of contents, discussion forums and videos for (2008) books.

59. Alexander, C. (2008) Market Risk Analysis, Volume I: Quantitative Methods in Finance. Wiley
60. Alexander, C. (2008) Market Risk Analysis, Volume II: Practical Financial Econometrics. Wiley
61. Alexander, C. (2008) Market Risk Analysis, Volume III: Pricing, Hedging and Trading Financial Instruments. Wiley
62. Alexander, C. (2008) Market Risk Analysis, Volume IV: Value at Risk Models. Wiley
63. Alexander, C. (2001) Market Models: A Guide to Financial Data Analysis. Wiley

Edited Books

64. Alexander, C. and D. Cumming eds. (Forthcoming) Corruption and Fraud in Financial Markets: Malpractice, Manipulation and Misconduct. Wiley
65. Alexander, C. and E. Sheedy eds. (2008) The Professional Risk Manager's Guide to Finance Theory and Application. McGraw-Hill
66. Alexander, C. and E. Sheedy eds. (2008) The Professional Risk Manager's Guide to Financial Markets. McGraw-Hill
67. Alexander, C. and E. Sheedy eds. (2008) The Professional Risk Manager's Guide to Financial Instruments. McGraw-Hill
68. Alexander, C. and E. Sheedy eds. (2004) The Professional Risk Manager's Handbook: Volume 1, Finance Theory, Instruments and Markets. PRMIA Publications, Illinois
69. Alexander, C. and E. Sheedy eds. (2004) The Professional Risk Manager's Handbook: Volume 2, Financial Mathematics. PRMIA Publications, Illinois
70. Alexander, C. and E. Sheedy eds. (2004) The Professional Risk Manager's Handbook: Volume 3, Financial Risk Management. PRMIA Publications, Illinois
71. Alexander, C. ed. (2003) Operational Risk: Regulation, Analysis and Management. FT-Prentice Hall
72. Alexander, C. ed. (2001) Mastering Risk Volume II. FT-Prentice Hall
73. Alexander, C. ed. (2000) Visions of Risk. FT-Prentice Hall
74. Alexander, C. ed. (1998) Risk Management and Analysis Volume I: Measuring and Modelling Financial Risk. Wiley
75. Alexander, C. ed. (1998) Risk Management and Analysis Volume II: New Markets and Products. Wiley
76. Alexander, C. ed. (1996) The Handbook of Risk Management and Analysis. Wiley
77. Alexander, C. (1980-1990) The Handbook of Applicable Mathematics. Assistant editor volumes I - V and co-editor volume VI. Wiley

Book Chapters, Reports and Conference Papers

78. Alexander, C. (2008) Hedging the risk of energy futures portfolios. Risk-Management in Commodity Markets: From Shipping to Agriculturals and Energy, H. Geman ed., Wiley
79. Alexander, C. (2008) Moving average models for volatility and correlation. Handbook of Finance, Volume 1, F. J. Fabozzi ed., Wiley
80. Alexander, C. (2008) Statistical models of operational loss. Handbook of Finance, Volume 1, F. J. Fabozzi ed., Wiley
81. Alexander, C. and A. Venkatramanan (2008) Commodity options. Handbook of Commodity Investing, F.J. Fabozzi, R. Fuss and D.G. Kaiser eds., Wiley
82. Alexander, C. and A. Dimitriu (2006) Rank alpha funds of hedge funds. Fund of Hedge Funds: Performance, Assessment, Diversification and Statistical Properties, G. N. Gregoriou ed., Elsevier
83. Alexander, C. (2005) Assessment of operational risk capital. Risk Management: Challenge and Opportunity, M. Frenkel, U. Hommel and M. Rudolf eds., Springer
84. Alexander, C. and A. Dimitriu (2005) Hedge Fund Index Tracking. Hedge Funds: Insights in Performance Measurement, Risk Analysis, and Portfolio Allocation, G.N. Gregoriou, G. Hubner, N. Papageorgiou, and F. Rouah eds., Wiley

85. Alexander C. and A. Dimitriu (2004) The Art of Investing. Hedge Funds: Fund Selection and Optimal Allocations. Intelligent Hedge Fund Investing, Barry Schachter ed., Risk Publications

86. Alexander, C. and L. Nogueira (2004) Stochastic local volatility. Proceedings of the second international IASTED conference on financial engineering and applications, MIT, 136-141

87. Alexander, C. and E. Lazar (2004) Time aggregation of normal mixture GARCH. Proceedings of the second international IASTED conference on financial engineering and applications, MIT, 210-215

88. Alexander, C. (2004) Principles of the skew. Exotic Options, Alexander Lipton ed., Risk Publications

89. Alexander, C. (2004) Correlation in crude oil and natural gas markets. Managing Energy Price Risk 3rd Edition V. Kaminsky ed., Risk Publications

90. Alexander, C. (2004) Advanced value-at-risk Models. Professional Risk Managers Handbook, Volume III, C. Alexander and E. Sheedy eds., PRMIA Publications

91. Alexander, C. (2004) Operational value-at-risk. Professional Risk Managers Handbook, Volume III, C. Alexander and E. Sheedy eds., PRMIA Publications

92. Alexander, C. and Pezier, J. (2003) Assessment and aggregation of banking risks. Commissioned report. International Financial Risk Institute (IFCI)

93. Alexander, C. (2003) Statistical models for operational loss. Operational Risk: Regulation, Analysis and Management, C. Alexander ed., Pearson

94. Alexander, C. (2003) Managing operational risks with Bayesian networks. Operational Risk: Regulation, Analysis and Management, C. Alexander ed., Pearson

95. Alexander, C. (2001) Orthogonal GARCH. Mastering Risk Volume II, C. Alexander ed., Pearson

96. Alexander, C. (2001) Bayesian methods for measuring operational risks. Mastering Risk Volume II, C. Alexander ed., Pearson

97. Alexander, C. (1999) Correlation and cointegration in energy markets. Managing Energy Price Risk, 2nd Edition. V. Kaminsky ed., Risk Publications

98. Alexander, C. (1998) Volatility and correlation: measurement, models and applications. Risk Management and Analysis: Measuring and Modelling Financial Risk. C. Alexander, ed., Wiley

99. Alexander, C. (1997) Estimating and forecasting volatility and correlation: methods and applications. Risk Management and Financial Derivatives: A Guide to the Mathematics, S. Das ed., LBC

100. Alexander, C. (1996) Volatility and correlation forecasting. Handbook of Risk Management and Analysis. C. Alexander ed., Wiley

101. Alexander, C. (1990) Non-cooperative finite games. Handbook of Applicable Mathematics. Volume VI. W. Ledermann and C. Alexander eds., Wiley

102. Alexander, C. (1980) Groups. Handbook of Applicable Mathematics, Volume I. W. Ledermann ed., Wiley

Practitioner Journal Articles

103. Alexander, C. (2003) Operational risk aggregation. Operational Risk (April)
104. Alexander, C. (2003) Common correlation and calibrating the lognormal forward rate model. Wilmott (March), 68-78
105. Alexander, C. (2002) Rules and models. Risk, 15:1, S2-S5
106. Alexander, C. (2001) Taking control of operational risk. Futures and Options World, 366, 60-65
107. Alexander, C. and J. Pezier (2001) Binomial gammas. Operational Risk (April)
108. Alexander, C. (2001) Taming the skew. Futures and Options World, 367, 60-65
109. Alexander, C. (2001) Principles of the skew. Risk 14:1, S29- S32
110. Alexander, C. and R. Thillainathan (1996) The Asian connections. Emerging Markets Investor, 2:6 42-47
111. Alexander, C. and A. Johnson (1994) Dynamic links. Risk, 7:2, 56-61
112. Alexander, C. (1994) History debunked, Risk, 7:12, 59-63
113. Alexander, C. and I. Giblin (1994) Chaos in the system. Risk, 7:6, 71-76
114. Alexander, C. and N. Riyait (1992) The world according to GARCH. Risk, 5:8, 120-125
115. Alexander, C. (1984) Evaluation of index-linked gilts using inflation forecasts. The Investment Analyst, 72, 7-12

WEB STATISTICS

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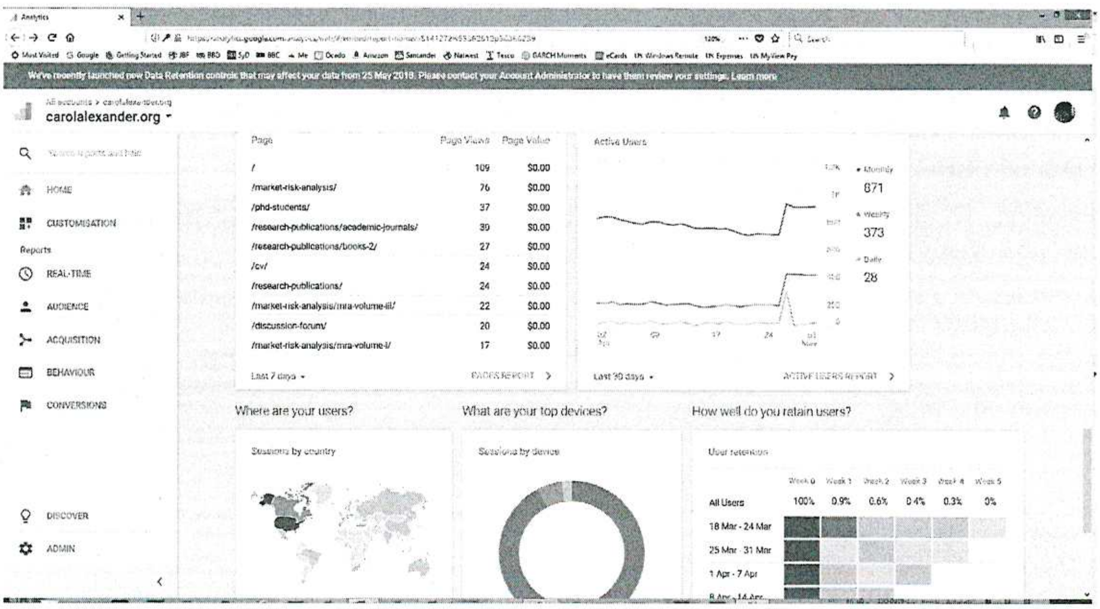

Carol Alexander, May 2, 2018