STEPHEN J. STRETTON

http://www.stephenstretton.co.uk/contact.html

PROFILE & KEY SKILLS

Economist, technical writer and quantitative modeller with excellent academic qualifications and strong professional experience. Key skills include:

Quantitative Analysis, Programming, Model Development and Validation:

- *Models*: market risk, credit risk (PD/LGD), economic capital, portfolio risk aggregation, CVA, mark-to-market; Monte Carlo & historical simulation; stock-flow consistent macroeconomics, time series.
- *Programming/IT*: R, Excel/VBA, Office, Latex, html, css, Bootstrap, Mathematica, F#, C++.
- *Financial Products*: traded and non-traded credit, CDS, CDOs, options, carbon, energy, FX, rates.
- *Qualifications*: BA in Mathematics & Part III Physics (1st Class), University of Cambridge.

Economics and Technical Writing:

- *Technical writer* producing high quality, readable, and concise documentation and reports.
- *Economic interests*: risk; monetary economics & public debt; theory of cost-benefit analysis & discounting; taxation theory; economics of climate change; pricing environmental externalities.
- *Qualifications*: MPhil in Economics (Cambridge); MA in Philosophy (Birkbeck College, London).

Interpersonal, Educational and Managerial:

- *Experienced chair of meetings; public speaker/presenter; some project management.*
- *Professional lecturer*: ‘R’ software training.
- *Personal mentor and academic tutor*: Mathematics, Physics and Economics from secondary school to postgraduate level; excellent track record of helping individuals achieve their potential.
- *Languages:* English (native), French (conversational), German (basic) and Mandarin (HSK 1).

EXPERIENCE

Credit Suisse (London) — **Since Oct 2012**

Consultant, Risk Methodology, Strategic Risk Management

- Responsible for technical documentation, credit models and CVA.
- Technical Documentation: Complete detailed VaR model documentation across all credit models; and confirmed model validation reports. Also upgraded Cash versus Futures Documentation sent to regulators (FINMA/PRA).
- Teaching (‘R’): Developed and taught eight-lecture course in statistical programming language ‘R’.
- Quantitative Analysis: Recommended an approach to CVA specific risk convexity. Task involved modelling the errors associated with the current approximation (linear model of specific risk combined with a revaluation approach to market risk). Used a mixed Monte Carlo and historical simulation approach in Excel/VBA.
- Impact Analysis & Regulatory Documentation: Provided impact analysis for regulators (FINMA/PRA) on introducing convexity into the measure of CVA risk. Task involved linking together different data sources and historical simulation modelling in R and Excel/VBA.

Lloyds Banking Group (London) — **Feb 2011 – Sept 2012**

Manager, Risk; Workstream Lead, Internal Capital Programme (Aggregation Workstream)

- Developed retail internal capital model.
- Developed methodology for aggregating and allocating internal capital across risk types.

Independent economic consultant (Cambridge, UK) — **Oct 2009 – Feb 2011**

- Developed econometric forecasting model of US M&A activity *(client: Quant Capital US LP)*.
- Completed report on economics of full-reserve banking *(client: Systemic Fiscal Reform Group)*.
- Completed economic modelling of climate policy *(client: Third Generation Environmentalism)*.
- Founded a think tank with role as deputy director (programme management). Organised workshops and completed report on climate change policy and carbon pricing *(E3 Foundation)*.
- Tutored students in economics, mathematics and physics *(clients: from GCSE to Masters level)*.

University of Cambridge, Department of Land Economy **Oct 2007 – Oct 2009**

Research Associate, Cambridge Centre for Climate Change Mitigation Research (4CMR)

- Responsible for economic and energy modelling and climate change policy analysis.
- Contributed to study "Breaking the Climate Deadlock" for *The Climate Group*, presented at the *UN*.
- Updated the Energy Technology Model of the global macroeconomic model E3MG.
- Successfully supervised three students for the MPhil in Environmental Policy.

Royal Bank of Scotland (London) **Oct 2004 – Sept 2005**

Consultant *Also see Education*

- Responsible for updating, testing and validating credit risk models.
- Built and tested models of loss given default for property, shipping, and business assets lending.
- Consulted with key stakeholders and completed statistical validation work using internal loss data.

Barclays Capital (London) **Nov 2001 – May 2003**

Associate, Portfolio Management

- Responsible for developing a full suite of valuation and risk models for c. £50bn large corporate loan portfolio (portfolio risk, mark-to-market loan model, CDS and CDO pricing tools).
- Advised on quantitative analytics and interpreting the results of external tools (e.g. *Moodys-KMV*).

EDUCATION

University of Cambridge, Gonville and Caius College **Sept 2005 – Jun 2006**

MPhil Economics

Courses taken include: Microeconomics, macroeconomics, econometrics and theory of finance. Dissertation: Energy economics.

University of London, Birkbeck College **Sept 2003 – Jun 2005**

MA Philosophy (part time)

Courses taken: General philosophy, epistemology & methodology and philosophy of science. Dissertation: Aristotelian ethics.

University of Cambridge, Gonville and Caius College **Sept 2000 – Jun 2001**

Part III Physics (equivalent to MSc) (1st Class)

Courses taken include: General physics, quantum field theory, information theory, and phase transitions & collective phenomena. Dissertation: Computational modelling of thin-film magnetism.

University of Cambridge, Gonville and Caius College **Sept 1997 – Jun 2000**

BA Mathematics

Courses taken include: Algebra, analysis, mathematical methods, probability, statistics, stochastic financial models and computational modelling.

King Edward's School (Birmingham) **Sept 1990 – Jul 1997**

Six A-Levels (all at grade A)

Subjects: Economics, Mathematics, Further Mathematics, Physics, Chemistry and General Studies. Also: AS French (grade A); STEP Maths level 2 & 3; School Prize for Outstanding Academic Achievement.

OTHER INFORMATION

Driving: Full clean UK driving license.

Personal interests: Long-distance running, hiking, cricket and music.

Availability: From January 2014; able to relocate globally; contract or permanent.

Referees: On request.