

## Curriculum Vitae

### **STEPHEN J. TAYLOR**

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This version May 2012

#### **FULL-TIME EMPLOYMENT**

Lancaster University:

Lecturer in Operational Research, 1977-1988.

Lecturer in Finance, 1988-1989.

Reader in Finance, 1989-1993.

Professor of Finance, 1993-.

Head, Department of Accounting and Finance, 1995-1998 and 2007-2009.

#### **OTHER EMPLOYMENT**

Visiting Lecturer:

Monash University, Melbourne, 1984-1985.

European Institute for Advanced Studies in Management, Brussels,  
1989, 1991, 1993, 1995, 1997 & 1999.

Institute for Advanced Studies, Vienna, 1993.

University of Canterbury, Christchurch, 1994.

City Polytechnic Hong Kong, 1994.

University of Technology Sydney, 1995 & 1997.

Aarhus University, 2001.

Peking University, 2005.

National Taiwan University, 2009.

Norwegian U. of Science and Technology, Trondheim, 2010, 2011 & 2012.

External Examiner in various years for Warwick University undergraduate programmes and Manchester University BA, MBA and MSc programmes.

PhD External Examiner, for Cambridge University, Oxford University, Warwick University, London School of Economics, Imperial College etc. in the U.K. and also for universities in Denmark, Norway, Italy, Hong Kong and Australia.

## DEGREES

BA, Mathematics, University of Cambridge, 1971-4.

MA, Operational Research, Lancaster University, 1974-5.

PhD, Operational Research, Lancaster University, 1975-8.

## TEACHING

BA/BSc: Corporate finance, International finance, Quantitative finance, Case exercises, Statistics, O.R. techniques

MSc: Financial markets, Financial econometrics, Statistics

MRes: Advanced research methods

PhD: Finance, Financial time series and applications, Derivatives

Executive: Volatility of stock prices and exchange rates

## PUBLICATIONS

### Books

1. S.J. Taylor, 1986, *Modelling Financial Time Series*, 268 pages, John Wiley and Sons, Chichester.

Japanese translation 1988, Tokyo-Keizai Shimpo Sha.

Korean translation 1994.

Second edition: 2008, 296 pages, World Scientific Publishing, Singapore.

2. R.M.C. Guimaraes, B.G. Kingsman and S.J. Taylor (editors), 1989, *A Reappraisal of the Efficiency of Financial Markets*, 804 pages, Springer-Verlag, Heidelberg.
3. S.J. Taylor, 2005, *Asset Price Dynamics, Volatility, and Prediction*, 552 pages, Princeton University Press, Princeton.

## Selected papers

1. S.J. Taylor and B.G. Kingsman, 1977, Comment : an autoregressive forecast of the world sugar future option market, *Journal of Financial and Quantitative Analysis* 12, 883-890.
2. S.J. Taylor and B.G. Kingsman, 1978, Non-stationarity in sugar prices, *Journal of the Operational Research Society* 29, 971-980.
3. S.J. Taylor, 1979, Empirical evidence for trends in capital markets, *Economics Letters* 3, 271-274.
4. S.J. Taylor and B.G. Kingsman, 1979, An analysis of the variance and distribution of commodity price-changes, *Australian Journal of Management* 4, 135-149.
5. S.J. Taylor, 1980, Conjectured models for trends in financial prices, tests and forecasts, *Journal of the Royal Statistical Society, Series A*, 143, 338-362.

Reprinted in: *Futures Markets : Their Establishment and Performance*, 1986, B.A. Goss editor, Croom Helm, Beckenham, 209-246.

Reprinted in: *Forecasting Financial Markets, Volume 1*, 2002, T.C. Mills editor, Edward Elgar, Cheltenham, 212-236.

6. S.J. Taylor, 1982, Tests of the random walk hypothesis against a price-trend hypothesis, *Journal of Financial and Quantitative Analysis* 17, 37-61.
7. S.J. Taylor, 1982, Financial returns modelled by the product of two stochastic processes, a study of daily sugar prices, 1961-79, in *Time Series Analysis : Theory and Practice 1*, O.D. Anderson editor, North Holland, Amsterdam, 203-226.

Reprinted in: *Stochastic Volatility : Selected Readings*, 2005, N. Shephard editor, Oxford University Press, Oxford, 60-82.

Reprinted in: *Financial Risk Measurement and Management*, 2012, in press, F.X. Diebold editor, Edward Elgar, Cheltenham.

8. S.J. Taylor, 1983, Trends in wool prices when Sydney futures are actively traded, *Australian Economic Papers* 22, 99-105.
9. S.J. Taylor, 1983, Strategies for investors in apparently inefficient futures markets, in *Futures Markets - Modelling, Managing and Monitoring Futures Trading*, M.E. Streit editor, Basil Blackwell, Oxford, 165-198.

10. S.J. Taylor, 1984, The efficiency of the international money markets : a comment, *Journal of Business Finance and Accounting* 11, 579-581.
11. S.J. Taylor, 1984, Estimating the variances of autocorrelations calculated from financial time series, *Applied Statistics* 33, 300-308.
12. S.J. Taylor, 1985, The behaviour of futures prices over time, *Applied Economics* 17, 713-734.
13. S.J. Taylor and C.W.R. Ward, 1985, Relative accuracy of earnings forecasts made by UK stockbrokers, *The Investment Analyst* No. 75, 15-17.
14. S.J. Taylor, 1987, Forecasting the volatility of currency exchange rates, *International Journal of Forecasting* 3, 159-170.  
  
Reprinted in: *Forecasting Financial Markets*, Volume 2, 2002, T.C. Mills editor, Edward Elgar, Cheltenham, 125-136.  
  
Reprinted in: *Financial Forecasting*, Volume 2, 2003, R. Batchelor and P. Dua editors, Edward Elgar, Cheltenham, 389-400.
15. S.J. Taylor, 1988, Forecasting market prices, *International Journal of Forecasting* 4, 421-426.
16. S.J. Taylor, 1988, How efficient are the most liquid futures contracts ? - a study of Treasury Bond futures, *The Review of Futures Markets* 7, 574-592.
17. S.J. Taylor and A. Tari, 1989, Further evidence against the efficiency of futures markets, in *A Reappraisal of the Efficiency of Financial Markets*, 578-601.
18. S.J. Taylor, 1989, Simulating financial prices, *Journal of the Operational Research Society* 40, 567-569.
19. S.J. Taylor, 1990, Profitable currency futures trading : a comparison of technical and time series trading rules, in *The Currency Hedging Debate*, L.R. Thomas editor, IFR Publishing Ltd., London, 203-239.
20. S. Poon and S.J. Taylor, 1991, Macroeconomic factors and the U.K. stock market, *Journal of Business Finance and Accounting* 18, 619-636.
21. S.J. Taylor, 1992, Efficiency of the Yen futures market at the Chicago Mercantile Exchange, in *Rational Expectations and Efficiency in Futures Markets*, B.A. Goss editor, Routledge, London, 109-128.

22. S. Poon, S.J. Taylor and C.W.R. Ward, 1992, Portfolio diversification : a pictorial analysis of the U.K. stock market, *Journal of Business Finance and Accounting* 19, 87-101.
23. S.J. Taylor, 1992, Rewards available to currency futures speculators : compensation for risk or evidence of inefficient pricing ?, *Economic Record* 68 (supplement), 105-116.
24. S. Poon and S.J. Taylor, 1992, Stock returns and volatility : an empirical study of the U.K. stock market, *Journal of Banking and Finance* 16, 37-59.
25. S.J. Taylor, 1994, Predicting the volatility of stock prices using ARCH models, with U.K. examples, *Managerial Finance* 20, Number 2/3, 102-117.
26. S.J. Taylor, 1994, Modelling stochastic volatility : a review and comparative study, *Mathematical Finance* 4, 183-204.  
  
Reprinted in: *Volatility*, 1998, R. Jarrow editor, Risk Books, London, 95-108.
27. X. Xu and S.J. Taylor, 1994, The term structure of volatility implied by foreign exchange options, *Journal of Financial and Quantitative Analysis* 29, 57-74.  
  
Reprinted in: *Volatility*, 1998, R. Jarrow editor, Risk Books, London, 179-190.  
  
Reprinted in: *Currency Derivatives*, 1998, D.F. DeRosa editor, John Wiley, New York, 181-200.
28. S.J. Taylor, 1994, Trading futures using the channel rule : a study of the predictive power of technical analysis with currency examples, *Journal of Futures Markets* 14, 215-235.  
  
Reprinted in: *Handbook of Managed Futures: Performance, evaluation, and analysis*, 1997, C. C. Peters and B. Warwick, editors, McGraw-Hill, 399-422.
29. S.J. Taylor and X. Xu, 1994, The magnitude of implied volatility smiles : theory and empirical evidence for exchange rates, *Review of Futures Markets* 13, 355-380.  
  
Reprinted in: *Currency Derivatives*, 1998, D.F. DeRosa editor, John Wiley, New York, 165-180.

30. X. Xu and S.J. Taylor, 1995, Conditional volatility and the informational efficiency of the PHLX currency options market, *Journal of Banking and Finance* 19, 803-821.
- Reprinted in: *Forecasting Financial Markets*, 1996, C. Dunis editor, John Wiley, Chichester, 181-200.
- Reprinted in: *Financial Forecasting, Volume 2*, 2003, R. Batchelor and P. Dua editors, Edward Elgar, Cheltenham, 518-536.
31. S.J. Taylor and X. Xu, 1997, The incremental volatility information in one million foreign exchange quotations, *Journal of Empirical Finance* 4, 317-340.
- Reprinted in: *Financial Markets Tick by Tick*, 1999, P. Lequeux editor, John Wiley, Chichester, 65-90.
32. Y. Chang and S.J. Taylor, 1998, Intraday effects of foreign exchange intervention by the Bank of Japan, *Journal of International Money and Finance* 17, 191-210.
33. S.J. Taylor, 1999, Markov processes and the distribution of volatility : a comparison of discrete and continuous specifications, *Philosophical Transactions of the Royal Society of London, Series A* 357, 2059-2070.
34. S.J. Taylor, 2000, Stock index and price dynamics in the U.K. and the U.S. : new evidence from a trading rule and statistical analysis, *European Journal of Finance* 6, 39-69.
35. B.J. Blair, S. Poon and S.J. Taylor, 2001, Modelling S&P 100 volatility : the information content of stock returns, *Journal of Banking and Finance* 25, 1665-1679.
36. B.J. Blair, S. Poon and S.J. Taylor, 2001, Forecasting S&P 100 volatility : the incremental information content of implied volatilities and high frequency index returns, *Journal of Econometrics* 105, 5-26.
- Reprinted in: *Handbook of Quantitative Finance and Risk Management*, 2010, C.F. Lee, A.C. Lee and J. Lee editors, Springer, New York, 1333-1344.
37. M. Martens, Y. Chang and S.J. Taylor, 2002, Intraday volatility forecasts using different seasonality adjustment methods, *Journal of Financial Research* 25, 283-297.
38. N.M.P.C. Areal and S.J. Taylor, 2002, The realized volatility of FTSE-100 futures prices, *Journal of Futures Markets* 22, 627-648.

39. B.J. Blair, S. Poon and S.J. Taylor, 2002, Asymmetric and crash effects in stock volatility for the S&P 100 index and its constituents, *Applied Financial Economics* 12, 319-329.
40. Y. Chang and S.J. Taylor, 2003, Information arrivals and intraday exchange rate volatility, *Journal of International Financial Markets, Institutions and Money* 13, 85-112.
41. S. Pong, M.B. Shackleton, S.J. Taylor and X. Xu, 2004, Forecasting currency volatility : a comparison of implied volatilities and AR(FI)MA models, *Journal of Banking and Finance* 28, 2541-2563.
42. Y. Wang, A. Keswani and S.J. Taylor, 2006, The relationships between sentiment, returns and volatility, *International Journal of Forecasting* 22, 109-123.
43. S.M. Bartram, S.J. Taylor and Y. Wang, 2007, The Euro and European financial market dependence, *Journal of Banking and Finance* 31, 1461-1481.
44. X. Liu, M.B. Shackleton, S.J. Taylor and X. Xu, 2007, Closed-form transformations from risk-neutral to real-world densities, *Journal of Banking and Finance* 31, 1501-1520.
45. S.J. Taylor, 2008, Stock price volatility, in *The New Palgrave Dictionary of Economics* (second edition), S.N. Durlauf and L.E. Blume editors, Palgrave MacMillan, volume 8, 8-10.
46. S. Pong, M.B. Shackleton and S.J. Taylor, 2008, Distinguishing short and long memory volatility specifications, *Econometrics Journal* 11, 617-637.
47. S.J. Taylor, P.K. Yadav and Y. Zhang, 2009, Cross-sectional analysis of risk-neutral skewness, *Journal of Derivatives* 16, Number 4, 38-52.
48. X. Liu, M.B. Shackleton, S.J. Taylor and X. Xu, 2009, Empirical pricing kernels obtained from the UK index options market, *Applied Economics Letters* 16, 989-993.
49. S.J. Taylor and Y. Wang, 2010, Option prices and risk-neutral densities for currency cross-rates, *Journal of Futures Markets* 30, 324-360.
50. S.J. Taylor, P.K. Yadav and Y. Zhang, 2010, The information content of implied volatilities and model-free volatility expectations: evidence from options written on individual stocks, *Journal of Banking and Finance* 34, 871-881.

51. M.B. Shackleton, S.J. Taylor and P. Yu, 2010, A multi-horizon comparison of density forecasts for the S&P 500 using index returns and option prices, *Journal of Banking and Finance* 34, 2678-2693.
52. S.J. Taylor, forthcoming, Consequences for option pricing of a long memory in volatility, in *Handbook of Financial Econometrics and Statistics*, C.F. Lee editor, Springer.

#### Selected working papers

S.J. Taylor, 2008, An econometric defence of pure-jump price dynamics.

Y. Zhang, S.J. Taylor and L. Wang, 2011, Investigating the information content of the model-free volatility expectation by Monte Carlo methods.

D. Gilder, M.B. Shackleton and S.J. Taylor, 2012, Cojumps in stock prices: empirical evidence.

#### Citations

ISI Web of Knowledge: 1350+

Google Scholar: 5000+

### **RESEARCH ACTIVITIES**

#### Current areas of interest

The behaviour of stock, commodity and currency prices in general and, in particular :

- (a) Modelling financial time series, especially the stochastic volatility of prices.
- (b) Measuring and forecasting the volatility of market prices using spot, futures and options prices.
- (c) Studies of high-frequency market quotations and transaction prices.
- (d) Estimation of risk-neutral and real-world densities for future asset prices from option prices.

### PhD theses supervised

|                     |                  |
|---------------------|------------------|
| Nelson Areal        | Helder Sebastiao |
| Guillermo Benavides | Ping-Chen Tsai   |
| Bevan Blair         | Chi-Feng Tzeng   |
| Yuanchen Chang      | Yaw-Huei Wang    |
| Dudley Gilder       | Alec Ward        |
| Xiaoquan Liu        | Gang Xu          |
| Jose Moreira        | Xinzhong Xu      |
| Shiuyan Pong        | Peng Yu          |
| Ser-Huang Poon      | Yuanyuan Zhang   |

### Research grants

Awarded by ESRC, NATO, Inquire UK and Inquire Europe.

### Professional societies

Member of the European, American and Western Finance Associations, Fellow of the Royal Statistical Society.

European Finance Association:

Executive Committee 1991-1994

Co-organiser of the Symposium on Empirical Derivatives Research 2003

Programme Committee member, almost all recent years

### Associate Editor

Mathematical Finance (1991-2006)

European Finance Review (1997-2003)

European Financial Management (since 1995)

Journal of Business Finance and Accounting (since 2001)

Journal of Banking and Finance (2003-2011)

### Journal refereeing

For 30+ journals, including :

Biometrika

Econometrica

European Finance Review

International Economic Review

J. American Statistical Association

J. Banking and Finance

J. Business and Economic Statistics

J. Econometrics

J. Economic Theory

J. Empirical Finance

J. International Money and Finance

J. Financial and Quantitative Analysis  
J. Futures Markets  
Management Science  
Mathematical Finance  
Review of Finance

#### International conference presentations

54+, including meetings of the American Finance Association, the European Finance Association, the French Finance Association, the Financial Management Association and the European Financial Management Association.

#### Recent invited talks

2006 onwards:

MathFinance conference, Frankfurt  
High-Frequency Finance conference, Sandbjerg  
Joint workshop, LSE/Imperial/Oxford  
Bank of England, London  
Universidad Carlos III Madrid  
University of Manchester  
University of Warwick  
University of Zurich  
ESRC PhD course, Exeter  
University of Basel  
Financial Econometrics conference, Imperial College  
Portuguese Finance Association, Coimbra  
Bachelier Finance Society, London  
International Institute of Forecasters workshop, Lisbon  
National Chengchi University, Taipei  
National Central University, Jhongli  
National Taiwan University, Taipei  
Financial Econometrics workshop, Alesund  
Peking University  
Financial Econometrics conference, Copenhagen

#### **ADMINISTRATION**

Head, Department of Accounting and Finance, 1995-1998 and 2007-2009, member of Senate and Management School Policy and Resources Committee.

Director of Management School doctoral programmes, 2010-.

At various times Director of Undergraduate Studies, First Year Tutor, Second Year Tutor, Final Year Tutor, Examinations Officer, Director of PhD Studies, Research Seminars Co-ordinator, Alumni Newsletter Editor.