James Eardley Howard Davidson

Curriculum Vitae, 2017

Degrees

B.Soc.Sc. (Economics and Political Science), Class I Honours. University of Birmingham 1973.

M.Sc. (Econometrics and Mathematical Economics) with Distinction. London School of Economics, 1975.

Appointments

Lecturer in Economics, University of Warwick; 1975-77.

Lecturer in Economics, London School of Economics; 1978-1994

Senior Lecturer in Economics, London School of Economics; 1994-1995

Professor of Economics, University of Wales, Aberystwyth, 1994-1995

Professor of Econometrics, Cardiff Business School, Cardiff University; 1996-2004

Professor of Econometrics, University of Exeter; 2004-present.

Visiting Professor, University of California Berkeley; Spring Quarter 1980

Visiting Professor, University of California San Diego; January-December 1988

Visiting Scholar, Hong Kong University of Science and Technology; January-March 2001.

Visiting Professor, Central European University, Budapest; 2008-2014.

Activities and Distinctions

External examiner at City of London Polytechnic, University of Southampton, University College London, University of Manchester, University of Bristol, University of Exeter, London School of Economics, University of Leicester, University College London.

PhD examiner at Universities of London (LSE), Oxford, Cambridge, Southampton, Bristol, Louvain and London Business School.

Referee for numerous research journals including *Econometrica*, *Journal of Econometrics, Review of Economic Studies*, *Econometric Theory*, *The Economic Journal*, *Journal of the Royal Statistical Society*, *Journal of Business and Economic Statistics*, *Journal of Applied Econometrics*, *Economica*.

Co-editor of *Economica*, 1981-1986.

Econometric Theory Award, “Multa Scripsit”, 2001.

Associate Editor, *Econometric Theory* 2002-2004.

Fellow of the *Journal of Econometrics*, 2006.

Guest Editor, *Journal of Econometrics* Annals Issue, 110(2) October 2002: Proceedings of the Cardiff Conference on Long Memory and Nonlinear Time Series, July 2000.

Programme Committee Member, Econometric Society European Meetings: Santiago de Compostela 1999, Lausanne 2001, Venice 2002, Stockholm 2003, Madrid 2004, Vienna 2006.

Research Grants

Suntory-Toyota Centre for Economics and Related Disciplines (LSE) 1979-1981

ESRC Macroeconomic Forecasting Consortium, 1982-1986

ESRC Macroeconomic Forecasting Consortium, 1987-1991

ESRC "Understanding the Evolving Macroeconomy" Programme 1999-2003

ESRC "Specification Tests for Nonlinear Time Series", 2008-10

Conference and Workshop Presentations (selected):

Econometric Society World Congresses: 1985, 1990, 1995, 2000, 2005, 2015.

Econometric Society European Meetings: 1978, 1979, 1981, 1983, 1984, 1986, 1989, 1991, 1993, 1996, 1997, 1998, 1999, 2001, 2002, 2003, 2004 (discussant), 2006, 2007, 2008, 2009.

ESRC Econometric Study Group: 1995, 1996, 1997, 1999, 2001, 2002

ERC/ METU Conference (Ankara) 2001

CRDE Conference on Resampling in Econometrics (Montreal) 2001

MMF/UEM Conference (Warwick) 2001, 2002

NSF/NBER Time Series Conference (Philadelphia) 2002

Workshop, "Econometric Time Series Analysis – Methods and Applications" University of Linz, Austria 2003

ESF/EMM Time Series Conference, Alghero Sardinia, September 2004

URCT Conference, University of the Algarve, Faro, Portugal, October 2005

Workshop on Long Memory, CREATES University of Aarhus, June 2007

Conference in Honour of Sir David Hendry, Oxford August 2007

EC^2 Conference, University of the Algarve, Faro, Portugal, December 2007

Conference in Honour of Paul Newbold, Granger Centre, University of Nottingham, September 2007

Econometric Society Far Eastern Meeting, July 2008.

NBER-NSF Time Series Conference Aarhus, September 2008

Conference in Honour of Timo Teräsvirta, CREATES, University of Aarhus, June 2012

Workshops on Long Memory, CREATES University of Aarhus, June 2011, June 2013, October 2015.

Publications

Books:

Stochastic Limit Theory. Oxford University Press: Advanced Texts in Econometrics, 1994. ISBN:0-19-877402-8 (hb.), 0-19-877403-6 (pb.).
This book is available online as one of the 200 titles of OUP's Oxford Scholarship Online initiative.

Econometric Theory. Blackwell Publishers, 2000. ISBN: 0-631-17837-6 (hb.), 0-631-21584-0 (pb.)

Chapters in Books:

"The Small Sample Properties of Estimators of the Moving Average Process", Chapter 2 of *Proceedings of the Econometric Society European Meeting 1979: Selected Econometric Papers in Honour of Stefan Valavanis*, ed. E. G. Charatsis, North Holland 1981.

"Money disequilibrium: some further results with a monetary model of the UK", Chapter 6 of *The Operation and Regulation of Financial Markets*, eds. Charles Goodhart, David Llewellyn and David Currie, Macmillan, 1987.

"Sampling Theory with Dependent Observations, Asymptotic", entry for *Encyclopaedia of the Statistical Sciences*, eds. N. Johnson and S. Kotz, John Wiley 1988.

"Bootstrap tests for fractional cointegration: a reappraisal of the relationship between government popularity and economic performance in the UK" in *New Trends in Macroeconomics*, eds. C. Diebolt and C. Kyrtsou, Springer Verlag (2005)

"Asymptotic Methods and Functional Central Limit Theorems" for *Palgrave Handbooks of Econometrics: Vol. 1 Econometric Theory* edited by T. C. Mills and K. Patterson, Palgrave-Macmillan (2005) .

"Error Correction Mechanisms", entry for *International Encyclopaedia of the Social Sciences* Macmillan Reference/Thompson (2007)

"When is a time series I(0)?" Chapter 13 of *The Methodology and Practice of Econometrics*, a festschrift for David F. Hendry edited by Jennifer Castle and Neil Shepherd, Oxford University Press (2009)

"Cointegration and Error Correction", Chapter 8 of *Handbook of Empirical Methods in Macroeconomics*, eds. Michael Thornton and Nigar Hashimzade, Edward Elgar. 2013.

"Consistent testing of functional form in time series models" (with Andreea Halunga), Chapter 2 of *Essays in Nonlinear Time Series Econometrics,* eds. Niels Haldrup, Pentti Saikkonen and Mika Meitz (Oxford University Press, 2014)

Refereed Journal Articles:

"Econometric modelling of the aggregate time series relationship between consumer expenditure and income in the United Kingdom" (with D. F. Hendry, F. Srba and S. Yeo), *The Economic Journal* 88 (December 1978), 661-92.

"Interpreting econometric evidence: the behaviour of consumers' expenditure in the UK" (with D. F. Hendry), *European Economic Review* 16 (May 1981), 177-92.

"Problems with the estimation of moving average processes", *Journal of Econometrics* 16,3 (August 1981), 295-310.

"Econometric modelling of the sterling effective exchange rate", *Review of Economic Studies* (1985) LII, 231-40.

"FIML Estimation of Models with Changes of Regime and Covariance Restrictions", *Economics Letters* 18 (1985) 27-30.

"Buffer Stock Models of the Monetary Sector" (with Jonathan Ireland, University of Strathclyde), *National Institute Economic Review* 121, August 1987.

"Buffer stocks, credit and aggregation effects in the demand for broad money: theory and an application to the U.K. personal sector" (with Jonathan Ireland, University of Strathclyde), *Journal of Policy Modelling* 12,2 (1990) 349-76.

"The cointegration properties of vector autoregression models", *Journal of Time Series Analysis* 12,1 (1991) 41-62.

"Cointegration in recursive systems" (with Stephen Hall, Imperial College School of Management), *Economic Journal* RES/AUTE 1990 Conference Supplement, 101 (March 1991) 239-51.

"The central limit theorem for globally nonstationary near-epoch dependent functions of mixing processes", *Econometric Theory* 8,3 (1992) 313-29.

"An L1-convergence theorem for heterogeneous mixingale arrays with trending moments", *Statistics & Probability Letters* 16 (1993) 301-304.

"The central limit theorem for globally nonstationary near-epoch dependent functions of mixing processes: the asymptotically degenerate case", *Econometric Theory* 9,3 (1993) 402-12.

"Identifying cointegrating regressions by the rank condition", *Oxford Bulletin of Economics and Statistics* 56, 1, (February 1994), 103-08.

"Modelling the UK gilt-edged market" (with G. Madonia, and P. Westaway, Bank of England), *Journal of Applied Econometrics* 9,3 (July-Sept 1994) 231-54.

"Strong laws for dependent and heterogeneous processes: a synthesis of new and recent results" (with Robert de Jong, Michigan State University), *Econometric Reviews* 16,3 (1997) 251-79

"Modelling political popularity: an analysis of long range dependence in opinion poll series" (with David Byers and David Peel, Cardiff Business School), *Journal of the Royal Statistical Society* Series A 160,3 (1997) 471-90

"A nonlinear error correction mechanism based on the bilinear model" (with David Peel, Cardiff Business School), *Economics Letters*. 58, 2 (February 1998) 165-70.

"A Wald test of restrictions on the cointegrating space based on Johansen's estimator", *Economics Letters* 59,2 (1998) 183-87.

"Structural relations, cointegration and identification: some simple results and their application", *Journal of Econometrics* 87 (1998), 87-113.
This paper was ranked 3rd by number of downloads from the *Journal of Econometrics* website; all issues up to end Nov. 1999, as well as for April 1999-March 2000.

"The dynamics of aggregate political popularity: evidence from eight countries" (with David Byers and David Peel) *Electoral Studies* 19,1 (1999) 49-62

"Consistency of kernel estimators of heteroscedastic and autocorrelated covariance matrices" (with Robert de Jong, Michigan State University). *Econometrica* 68,2 (2000) 407-24

"The functional central limit theorem and weak convergence to stochastic integrals I: weakly dependent processes" (with Robert de Jong, Michigan State University) *Econometric Theory* 16, 5 (2000) 621-42.

"The functional central limit theorem and weak convergence to stochastic integrals II: fractionally integrated processes" (with Robert de Jong, Michigan State University) *Econometric Theory* 16, 5 (2000) 643-66

"Establishing conditions for the functional central limit theorem in nonlinear and semiparametric time series processes", *Journal of Econometrics* 106 (2002) 243-269

"Establishing conditions for the functional central limit theorem in nonlinear and semiparametric time series processes: Corrigendum" *Journal of Econometrics* 110(1) (2002) 103-204.

"Modelling political popularity: a correction" (with David Byers and David Peel, Cardiff University) *Journal of the Royal Statistical Society* Series A (2002) 165, Part 1 pp 187-89.

"Consistency of kernel variance estimators for sums of semiparametric linear processes" (with Robert de Jong), *Econometrics Journal* (2002) 5, pp 160-175.

"A model of fractional cointegration, and tests for cointegration using the bootstrap" *Journal of Econometrics* (2002) 110(2) 187-212.

"Long memory and nonlinear time series" (Introduction to JoE Annals Issue, with Timo Teräsvirta), *Journal of Econometrics* (2002) 110(2), 105-112

"Moment and memory properties of linear conditional heteroscedasticity models, and a new model" *Journal of Business and Economics Statistics* (2004) 22 (1), pp 16-29.

"Forecasting Markov-switching dynamic, conditionally heteroscedastic processes", *Statistics and Probability Letters* (2004) 68(2) 137-147

"Generating schemes for long memory processes: regimes, aggregation and linearity" (with Philipp Sibbertsen). *Journal of Econometrics*. (2005) 128 (2) 253-282

"Support for Governments and Leaders: Fractional Cointegration Analysis of Poll Evidence from the UK, 1960-2004." (with David Byers and David Peel) *Studies in Nonlinear Dynamic and Econometrics* 10.1 (2006)

Alternative bootstrap procedures for testing cointegration in fractionally integrated processes" *Journal of Econometrics* (2006) 133 (2) 741-777

"Implementing the wild bootstrap using a two-point distribution", (with Andrea Monticini and David Peel) *Economics Letters* (2007) 96(3), 309-315

"The long memory model of political support: some further results" (With David Byers and David Peel) *Applied Economics* (2007) 29(20) 2547-2552.

"Alternative Frequency and Time Domain Versions of Fractional Brownian Motion" (with Nigar Hashimzade) *Econometric Theory* (2008) 24(1), 256-293.

"A General Bound for the Limiting Distribution of Breitung's Statistic", (with Jan Magnus and Jan Wiegerinck) *Econometric Theory*, 24(5), October 2008, pp 1443-1455

"Tests of Bias in Log-Periodogram Regression" (with Philipp Sibbertsen) *Economics Letters* 102 (2009), 83-86.

"Type I and type II fractional Brownian motions: a reconsideration" (with Nigar Hashimzade) *Computational Statistics and Data Analysis* 53(6) (2009) 2089-2106

"Representation and Weak Convergence of Stochastic Integrals with Fractional Integrator Processes", (with Nigar Hashimzade) *Econometric Theory* 25 (6) (2009) 1589-1624.

"Tests for cointegration with structural breaks based on subsamples" (with Andrea Monticini). *Computational Statistics and Data Analysis* 54 (11) (2010) 2498-2511.

"A test of the long-memory hypothesis based on self-similarity" (with Dooruj Rambaccussing) *Journal of Time Series Econometrics* 7(2) (2015) 115-142.

"Time series modelling of paleoclimate data" (with David Stephenson and Alemtsehai Turasie), *Environmetrics* 27(1) (2016) 55-65

"Strict stationarity, persistence and volatility forecasting in ARCH(∞) processes" (with Xiaoyu Li) *Journal of Empirical Finance* 38B (2016), 534-547

"World Commodity Prices and Domestic Retail Food Inflation: Some Insights from the UK" (with Andreea Halunga, Tim Lloyd, Steve McCorriston and Wyn Morgan), *Journal of Agricultural Economics 67, (2016) pp. 566–584*

Selected Book Reviews:

Of *Modelling Economic Series: readings in Econometric Methodology* (ed. C. W. J. Granger), for *Economica* 58 (August 1991) 405-408.

Of *Time Series Analysis: Nonstationary and Noninvertible Distribution Theory* by Katsuto Tanaka, for *Journal of Time Series Analysis* 18,5 (1997), 529-31

Of *Semimartingales and their Statistical Inference* by B. L. S. Prakasa Rao, for *SIAM Review* 42,3 (2000)

Of *Understanding Economic Forecasts*, eds. D. F. Hendry and N. R. Ericsson, for THES, October 18th, 2002.

Other Research Output

Econometric Software

Time Series Modelling 4.49 An Ox 5/6/7-based package, equipped with a Windows GUI interface, which estimates and simulates linear and nonlinear time series models, including several GARCH variants, Markov switching, smooth transition, etc. (2002-2016)

Long Memory Modelling 2.1: Ox 3.0 estimation package for time series models with long memory in mean and variance. (2002)

Bootstrap and *Simulation Classes* version 3. Ox routines for computing bootstrap tests and confidence intervals. (2005)

OxJapi Version 2. A Java-based graphical user interface for Ox, with Tim Miller. 2009.

Unpublished Discussion Papers

'Measurement errors and the UK consumption function', Warwick Economic Research Paper, 1976.

'A Monte-Carlo study of measurement error bias', Warwick Economic Research Paper, 1976.

'Stock-Flow Relationships in Models of the Demand for Consumer Durables', LSE mimeo, 1980.

'Alternative Estimators for Systems with Log-linear Stochastic Equations and Linear Identities', ICERD Econometrics Discussion Paper 81/29.

'An Econometric Model of the Money Supply and Balance of Payments in the United Kingdom' with Manfred Keil, ICERD Econometrics Discussion Paper 81/29.

'Error Correction Systems' ICERD Econometrics Discussion Paper 83/79.

'Money Disequilibrium: An Approach to Modelling Monetary Phenomena in the U.K.', ICERD Econometrics Discussion Paper 84/96.

'Efficient Three Stage Least Squares Estimation of Nonlinear Models, and Models with Switches of Regime', ICERD mimeo, 1985.

'Cointegration in Linear Dynamic Systems', ST/ICERD Discussion Paper, December 1986.

'The Cointegration Properties of VAR Models' UCSD Economics Discussion paper, September 1988.

'Buffer stock money and money demand equations' (with Jonathan Ireland) UCSD Discussion Paper, October 1988.

'Cointegration in Recursive Systems: The Structure of Wage and Price Determination in the UK' (with Stephen Hall) UCSD Discussion Paper, November 1988.

‘On the central limit theorem for nonstationary mixing processes’ ST/ICERD Discussion Paper EM/90/216 August 1990.

‘On the strong law of large numbers for nonstationary near-epoch dependent functions of mixing processes’ December 1991.

‘Conditions for strong and uniform mixing in linear processes’, ST/ICERD Discussion Paper 92/251.

‘The multivariate invariance principle for globally nonstationary processes, with an application to I(2) models,’ ST/ICERD Discussion Paper 93/262.

‘Consistency of kernel estimators of heteroscedastic and autocorrelated covariance matrices’ (with Robert de Jong, Michigan State University), Cardiff Economics Discussion Paper 96:091.

‘The functional central limit theorem and weak convergence to stochastic integrals: results for weakly dependent and fractionally integrated processes’ (with Robert de Jong, Michigan State University), Cardiff Economics Discussion Paper 97:092.