### Allan Timmermann

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### **University Education**

Ph.D., University of Cambridge, 1992 Cand. Polit, University of Copenhagen, Institute of Economics, 1991 MSc Economics, London School of Economics, 1988

### **University Positions**

Lecturer in Financial Econ., Univ. of London (Birkbeck College), Oct. 1991-June 1994 Assistant Professor of Economics, UCSD, 1994 – 1998 Associate Professor of Economics (tenured), UCSD, 1999 – 2001 Professor of Economics, UCSD, 2001 – present Kaiser Visiting Professor of Risk and Insurance, Stanford University, April - July 2003

# **Other Experience**

Visiting Professor, Monash University, Melbourne Australia June 1998 Visiting Professor, University of Aarhus, Denmark August 1998 Visiting Professor of Finance, London School of Economics, 1998 – 1999 Visiting Scholar, Board of the US Federal Reserve, Washington DC May 2000 Visiting Scholar, IMF, Washington DC, December 2001

### **Editorial Services**

Departmental Editor, Journal of Forecasting (2000-2005)
Associate Editor, Journal of Business and Economic Statistics (2001-)
Associate Editor, Journal of Economic Dynamics and Control (2001-)
Associate Editor, Journal of Financial Econometrics (2003-)
Associate Editor, Annals of Finance (2004-)
Editorial Board Member, Journal of Asset Management (2000-)

# Scholarships, Prizes and Research Grants

British Council Scholarship (1987/88)
Carlsberg Scholarship (1987)
The Carlsberg Studentship at Churchill College (1988-1991)
Tress Prize at Birkbeck College for outstanding research (1993)
Hellmann Faculty Fellowship, University of California San Diego (1997-98)
UK Inquire grant, 1999
BSI Gamma Foundation grant, 1999

National Science Foundation (NSF) grant, 2001-2003

# **Appointments/Professional Affiliations**

Research Fellow of the CEPR (1997-present)

Member of the Organizing Committee of Computational Finance Conferences (1994-)

Forecasting Financial Markets, Organizing Committee (1999 – 2003)

Listed in 'top 200 economists' 'worldwide rankings of economists and economics

departments' study commissioned by the European Economic Association

Entry in 'Who is Who in Finance and Industry'

Entry in 'Who is Who in the World', 2004 edition

Entry in 'Who is Who in the US', 2004 edition

Entry in 'Who is Who in Economics', 4<sup>th</sup> edition

Program Committee, IEEE international conference on computational intelligence for financial engineering (CIFEr2003)

Program Committee, European Finance Association Meetings 2003, 2004

Zellner Award Committee, Journal of Business and Economic Statistics, 2001

### **Consulting Experience**

Consulted for a variety of international banks and investment institutions.

Acted as expert witness in relation to financial management and economic loss cases

#### **Professional Courses**

Financial Integrity Research Network (FIRN), February 2006

CIDE, 1-week course on Forecasting Methods, Bertinoro, Italy June 2003

European Central Bank, 1 week course on Financial Econometrics, December 2002

University of Aarhus, 3-day Forecasting course, June 2002

# **Administrative Experience**

Management School Committee, UCSD (2001)

Dean Search Committee, UCSD Management School (2002)

Graduate Committee Member (2001, 2002)

### **Teaching**

100% approval ratings for Econ174 (Financial Insurance) and Econ178 (Business

Forecasting) courses – congratulatory letter from the Senior Vice Chancellor

Nominated for teaching award, 2002

Approval rating of 4.7 out of 5.0 teaching evaluation summary (Spring 2002/03 Stanford)

#### **Invited Lectures**

Brinson Lecture, Washington State University, April 1998

Invited Lecture, Econometric Society Australasian Meetings, June 1998

Invited Lecture, University of Manchester, June 2002

Invited Lecture, Tinbergen conference, Rotterdam, April 2003

#### **Publications**

#### A. Journal Articles

Forecasting Time Series Subject to Multiple Structural Breaks. Forthcoming in <u>Review</u> of Economic Studies (with Hashem Pesaran and Davide Pettenuzzo).

Can Mutual Fund "Stars" Really Pick Stocks? New Evidence from a Bootstrap Analysis. Forthcoming in <u>Journal of Finance</u> (with Robert Kosowski, Russ Wermers and Hal White).

Selection of Estimation Window in the Presence of Breaks. Forthcoming in Journal of Econometrics (with Hashem Pesaran).

Term structure of Risk under Alternative Econometric Specifications. Forthcoming in <u>Journal of Econometrics</u> (with Massimo Guidolin).

Persistence in Forecasting Performance and Conditional Combination Strategies. Forthcoming in Journal of Econometrics (with Marco Aiolfi).

Instability of Return Prediction Models. Forthcoming in <u>Journal of Empirical Finance</u> (with Bradley Paye).

An Econometric Model of Nonlinear Dynamics in the Joint Distribution of Stock and Bond Returns. Forthcoming in <u>Journal of Applied Econometrics</u> (with Massimo Guidolin)

Properties of Equilibrium Asset Prices under Alternative Learning Schemes. Forthcoming in Journal of Economic Dynamics and Control (with Massimo Guidolin).

Estimation and Testing of Forecast Rationality under Flexible Loss. <u>Review of Economic Studies</u>, 2005, 72, 1107-1125 (with Graham Elliott and Ivana Komunjer).

Completion Time Structures of Stock Price Movements. <u>Annals of Finance</u>, 2005, 1(3) 193-326 (with Asger Lunde).

Economic Implications of Bull and Bear Regimes in UK Stock Returns. <u>Economic</u> Journal, 2005, 111-143 (with Massimo Guidolin).

Real time Econometrics. <u>Econometric Theory</u> 2005, 1, 212-231 (with Hashem Pesaran).

Relative Performance Evaluation Contracts and Asset Market Equilibrium. <u>Economic Journal</u>, 2005, 1077-1102 (with Sandeep Kapur).

Optimal Forecast Combination under Regime Switching. <u>International Economic</u> Review, 2005, 46(4), 1081-1102 (with Graham Elliott).

Small Sample Properties of Forecasts from Autoregressive Models under Structural Breaks. <u>Journal of Econometrics</u>, 2005, 183-217 (with Hashem Pesaran).

International Asset Allocation with Time-varying Investment Opportunities. <u>Journal of</u> Business 2005, 78(1) 71-98 (with David Blake).

Optimal Forecast Combinations under General Loss Functions and Forecast Error Distributions. <u>Journal of Econometrics</u>, 2004 (September), 47-79 (with Graham Elliott).

Duration Dependence in Stock Prices: An Analysis of Bull and Bear Markets. <u>Journal of Business and Economic Statistics</u>, 2004, vol 22, 253-273 (with Asger Lunde).

How costly is it to ignore breaks when forecasting the direction of a series? <u>International Journal of Forecasting</u>, 2004, vol. 20, 411-424 (with Hashem Pesaran).

Efficient Market Hypothesis and Forecasting. <u>International Journal of Forecasting</u>, 2004, vol. 20, 15-27. (with C. Granger)

Scientific Progress with Data Sharing. <u>International Journal of Forecasting</u>, 2004, vol 19, 217-227 (with R. Sullivan and H. White).

Option Prices under Bayesian Learning: Implied Volatility Dynamics and Predictive Densities. <u>Journal of Economic Dynamics and Control</u> 2003, 27 (5) 717-769 (with Massimo Guidolin).

Recursive Modeling of Nonlinear Dynamics in UK Stock Returns. Manchester School vol 71, 381-395, July 2003.

Market Timing and Return Prediction under Model Instability. <u>Journal of Empirical</u> Finance 2002, 9, 495-510 (with Hashem Pesaran).

Performance Clustering and Incentives in the UK pension Fund Industry. <u>Journal of Asset Management</u> 2002, 3(2), 173-194 (with David Blake and Bruce Lehmann).

Structural Breaks, Incomplete Information, and Stock Prices. <u>Journal of Business and Economic Statistics</u> 2001, 299-315.

Business Cycle Asymmetries in Stock Returns: Evidence from Higher Order Moments and Conditional Densities. <u>Journal of Econometrics</u> 2001, vol 103, 259-306 (with Gabriel Perez-Quiros).

Dangers of Data Mining: The Case of Calendar Effects in Stock Returns. <u>Journal of Econometrics</u> 2001, 249-286 (with Ryan Sullivan and Hal White).

Firm Size and Cyclical Variations in Stock Returns. <u>Journal of Finance</u>, 2000, 1229-1262 (with Gabriel Perez-Quiros).

Moments of Markov Switching Models. <u>Journal of Econometrics</u>, 2000, 96, 75-111.

A Recursive Modelling Approach to Predicting UK Stock Returns. <u>Economic Journal</u>, 2000, 159-191 (with Hashem Pesaran). Reprinted in T.C. Mills (ed.) 'Forecasting Financial Markets.' Edward Elgar Publishing 2001.

Data-Snooping, Technical Trading Rules and the Bootstrap. <u>Journal of Finance</u>, 1999, 54, 1647-1692 (with Ryan Sullivan and Hal White).

Asset Allocation Dynamics and Pension Fund Performance. <u>Journal of Business</u>, 1999, 72, 429-461 (with David Blake and Bruce Lehmann).

Risk Sharing and Transition Costs in the Reform of Pension Systems in Europe. <u>Economic Policy</u>, 1999, 253-286 (with David Miles).

The Hazards of Mutual Fund Underperformance: A Cox Regression Analysis. <u>Journal of Empirical Finance</u>, 1999, 121-152 (with Asger Lunde and David Blake).

Mutual Fund Performance: Evidence from the UK. <u>European Review of Finance</u>, 1998, 57-77 (with David Blake).

Excess Volatility and Predictability of Stock Returns in Autoregressive Dividend Models with Learning. Review of Economic Studies, 1996, 523-557.

Variation in Expected Stock Returns. Evidence on the Pricing of Equities from a Cross-Section of UK Companies. <u>Economica</u>, 1996, 63, 369-82 (with David Miles).

Option Pricing with GARCH and Systematic Consumption Risk. <u>Derivatives Use</u>, <u>Trading & Regulation</u>, 1996, Part II: vol 1(4), pp 353-67 (with Steve Satchell).

Predictability of Stock Returns: Robustness and Economic Significance. <u>Journal of Finance</u>, 1995, 50, 1201-1228 (with Hashem Pesaran). Reprinted in T.C. Mills (ed.) 'Forecasting Financial Markets.' Edward Elgar Publishing 2001.

On the Optimality of Adaptive Expectations: Muth Revisited. <u>International Journal of</u> Forecasting, 1995, 11(3), 407-16 (with Steve Satchell).

Cointegration Tests of Present Value Models with a Time-Varying Discount Factor. <u>Journal of Applied Econometrics</u>, 1995, 10, 17-31.

An Assessment of the Economic Value of Nonlinear Foreign Exchange Rate Forecasts. <u>Journal of Forecasting</u>, 1995, 14(6), 477-498 (with Steve Satchell). To be reprinted in T.C. Mills (ed.) Economic Forecasting. Edward Elgar. UK

Option Pricing with GARCH and Systematic Consumption Risk. <u>Derivatives Use</u>, <u>Trading & Regulation</u>, 1995, Part I: vol 1 (3), pp 279-88 (with Steve Satchell).

Can Agents Learn to Form Rational Expectations? Some Results on Convergence and Stability of Learning in the UK Stock Market. Economic Journal, 1994, 104, 777-98.

Present value Models with Feedback: Solutions, Stability, Bubbles, and Some Empirical Evidence. Journal of Economic Dynamics and Control, 1994, 18, 1093-1119.

Forecasting Stock Returns. An Examination of Stock Market Trading in the Presence of Transaction Costs. Journal of Forecasting, 1994, 13, 335-67 (with Hashem Pesaran).

Why do Dividend Yields Forecast Stock Returns? <u>Economics Letters</u>, 1994, 46, 149-158.

A Generalization of the Non-Parametric Henriksson-Merton test of Market Timing. Economics Letters, 1994, 44, 1-7 (with Hashem Pesaran).

Optimal Properties of Exponentially Weighted Forecasts in the Presence of Different Sources of Information. <u>Economics Letters</u>, 1994, 45, 169-74 (with Steve Satchell).

How Learning in Financial Markets Generates Excess Volatility and Predictability in Stock Prices. Quarterly Journal of Economics, 1993, 108, 1135-1145.

Learning, Specification Search and Stock Market Efficiency. With an Application to the Danish Stock Market. <u>Scandinavian Journal of Economics</u>, 1993, 95(2), 157 - 73.

Chaos and Non-linear Components in Danish Asset Prices. <u>Journal of the Danish</u> Economic Association, 1993, vol 131, 374-389.

A Simple Non-Parametric Test of Predictive Performance. <u>Journal of Business and Economic Statistics</u>, 1992, 461-65 (with Hashem Pesaran).

The Long Run Behaviour of Danish Stock Prices. <u>Journal of the Danish Economic</u> Association, 1992, vol 130, 3, 473-82.

The Stock Market Crash of October 1987. <u>Journal of the Danish Economic Association</u>, 1988, vol 127, 1, 74-94.

# B. Refereed Book Chapters, Comments, Reviews and Special Issues

Data Mining in Finance. Forthcoming in New Palgrave Dictionary of Finance (2004).

Markov Switching Models in Finance. Forthcoming in <u>New Palgrave Dictionary of</u> Finance (2004).

Density Forecasting in Economics and Finance. Editorial in special issue of <u>Journal of Forecasting</u>. August 2000.

Data Mining with Local Model Specification Uncertainty: A Discussion of Hoover and Perez. Econometrics Journal, 1999, vol 2, pp 220-225. (with Clive Granger).

Variations in the Mean and Volatility of Stock Returns around Turning Points of the Business Cycle (with Gabriel Perez-Quiros). John Knight and Steve Satchell (eds): Forecasting Volatility in the Financial Markets, pages 287-306. Butterworth-Heinemann, Oxford (1998).

Daily Returns in International Stock Markets: Predictability, Nonlinearity, and Transaction Costs, 1997, Pages 369-391 in Barnett, Kirman and Salmon (eds.) <u>Nonlinear Dynamics and Economics</u>. Proceedings of the tenth international symposium in economic theory and econometrics (with Steve Satchell).

Book Review of Robert Trippi and Efram Turban (eds) Neural Networks in Finance and Investing. Revised Edition, Irwin (1997). <u>International Journal of Forecasting</u>.

Scales and Stock Markets. Nature, 1995, vol 376, 18-19.

Investor Preferences and the Correlation Dimension. In Robert Trippi (ed.) <u>Chaos and Nonlinear Dynamics in the Financial Markets. Theory, Evidence and Applications</u> (with Steve Satchell).

#### C. Books

Developments in Forecast Combination and Portfolio Choice. Edited with C. Dunis and J. Moody. Wiley 2001.

# D. Work in progress

Can Mutual Fund "Stars" Really Pick Stocks? New Evidence from a Bootstrap Analysis (with Robert Kosowski, Hal White and Russ Wermers). Revise and resubmit, Journal of Finance.

Size and Value Anomalies under Regime Shifts (with Massimo Guidolin). Revised and resubmitted, Journal of Financial and Quantitative Analysis.

Country and Industry Dynamics in Stock Returns (with Luis Catao). IMF working paper.

#### Refereed for

American Economic Review, Applied Mathematical Finance, Economic Inquiry, Economic Journal, Economica, Journal of Applied Econometrics, Journal of Empirical Finance, Journal of Econometrics, Econometric Reviews, Journal of Economic Dynamics and Control, Economic Theory, Journal of Finance, Journal of Financial Econometrics, Journal of Financial and Quantitative Analysis, Journal of Financial Markets, Journal of

Forecasting, Journal of Money, Credit and Banking, Journal of Monetary Economics, National Science Foundation (NSF), Nature, Quantitative Finance, Review of Economic Studies, Review of Economics and Statistics, Review of Financial Studies, Risk Magazine, Scandinavian Journal of Economics, Studies in Nonlinear Dynamics and Econometrics.

### **Seminar Presentations/invited talks**

University of Aarhus, Denmark August 1998, June 2002

Aarhus Business School, June 2002

University of Amsterdam, January 2001

University of Arizona, January 2006

Arizona State University, March 2002, May 2004

Australian Nat. Univ. (Invited talk Australasian Econometric Society Meet., June 1998)

Bank of England, 1993

Birkbeck College, University of London 1991, 1994

Bocconi University, March 2002

University of Bristol, UK November 1998

California Institute of Technology

Camp Econometrics (Catalina Island, May 1998)

Cattolica, Milano, December 2004

University of California, Davis (Economics, December 2000)

University of California, Los Angeles (Economics)

University of California, Los Angeles (Graduate School of Management)

University of California, Riverside, 2003

University of California, San Diego

University of California, Santa Barbara

University of Cambridge, UK January 1999

CEPR conference on derivatives, Louvain Belgium 1994

CEPR lunch seminar, London February 1997

University of Chicago, October 2002

Cirano, Montreal (conference on mutual funds) December 2002

City University Business School, London February 1999

Computational Finance (CF 99), Stern Business School, January 1999

Computational Finance (CF 2000), London Business School, London, June 2000

University of Copenhagen, June 2001

Duke/Triangle Seminar, March 2005

EC^2 conference on forecasting, Stockholm December 1998

Econometric Society Meetings, Philadelphia January 2005 (2 presentations)

Economic Policy Panel Meeting, Deutsche Bundesbank Frankfurt April 1999

Erasmus University (department of Econometrics), Rotterdam July 1999

European University Institute, Fiesola Italy, 1992, conf. on chaos and nonlinear methods University of Exeter, UK 1994

Federal Reserve Board, Washington DC, May 2000

First Quadrant, London May 1999

Forecasting Financial Markets Conference, London May 1999 (presentation + chair)

HEC Paris, December 2004

University of Houston (business school), October 2002

Humboldt University, Berlin June 2001

Imperial College Business School, London February 1999

Imperial College Business School, London June 2001

Inquire Conference, Istanbul October 1998

International Center for Money and Banking Studies, ICMBS, Geneva September 1998

IMF, May 2000

INSEAD (finance), December 2004

University of Iowa, March 2005

London Business School, 1993

London School of Economics, November 1998, February 1999, 2002, Dec. 2004

Long Term Capital Management, London, UK January 1999

BSI conference on Pension Fund Reform, Rome October 2000 (MEFOP)

University of Manchester, England (invited talk), June 2001

McGill University, December 2002

Monash University, Melbourne Australia July 1998, February 2006

NBER Summer Institute (Boston, MA), July 1996

New York University, Stern Business School, March 2000

North American Econometric Society Winter Meetings (Chicago, January 1998)

North American Econometric Society Summer Meetings (Pasadena, July 1997)

Oxford University, Nuffield College, November 1998

University of Pennsylvania, April 1997, April 2001

Penn State, April 1997, February 2004 (Finance)

Pompeu Fabra, December 2004

Princeton University, April 2004

Royal Statistical Society (TIMSAC meeting) March 1999

University of Pennsylvania, April 1997, April 2000

Rice, February 2004

University of Rochester, Simon School of Business, May 2003

University of Southern California, February 2004

St. Louis Federal Reserve Bank, Regime Switching Conference, May 2002

Stanford University, May 2003, July 2003

Stockholm School of Economics, December 2005

University of Sussex, UK, 1992

University of Technology and Science (UTS), Sydney Australia, July 1998

Vanderbilt University, Owen Business School, May 2000

University of Warwick, UK, November 1998

Washington State University (Brinson Distinguished Lecture Series, April 1998)

University of Washington, November 2004

Western Finance Association (WFA) Meetings, Monterrey June 1998

Western Finance Association (WFA) Meetings, Santa Monica June 1999

Western Finance Association (WFA) Meetings, Tucson June 2001