Curriculum Vitae

George Tauchen

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Personal

Date of this CV: September 22, 2009

Birth date: November 26, 1949

Education

PhD	University of Minnesota	1978
BA	University of Minnesota	1971

Areas of Research

Econometrics, Financial Economics

Areas of Interest

Econometrics
Financial Economics

Professional Experience / Employment History

Duke University

Professor of Finance (Joint Appointment), Fuqua School of Business, 1998 - present
William Henry Glasson Professor of Economics, Duke University, 1997 - present
Professor, Department of Economics, Duke University, 1987 - present
Associate Professor with tenure, Department of Economics, Duke University, 1983-1987
Assistant Professor, Department of Economics, Duke University, 1977-1982

Visiting Positions

Visitor, University of Chicago, January 1995-March 1995
Visiting Fellow, The Australian National University, April 1995-June 1995
Visiting Associate Professor, University of Chicago, January 1987-June 1987

Awards, Honors, and Distinctions

Founding member of the Society for Financial Econometrics, September, 2007

Fellow of the Journal of Econometrics, 2004
Duke University Scholar/Teacher of the Year, 2003, Duke University
William Henry Glasson Professor of Economics, Duke University, 1997
Fellow of the Econometric Society, 1994
Fellow of the American Statisticial Association, 1993

Conferences Organized

Program Chair, 2007 North American Summer Meeting of the Econometric Society, March 1, 2006 - December 31, 2007
Co-Organizer, Conference on the Risk Neutral and Objective Probability Distributions, October 2000
Co-organizer, 1997 NSF-NBER Time Series Meeting, October 1997
Co-organizer, Conference on New Computational Methods in Economics and Finance, September 1995
Co-organizer, CIRANO/CRDE International Conference on Stochastic Volatility, October 1994
Co-organizer, Triangle Econometrics Conference, December 1993-1998
Organizer, Workshop on Nonlinear Dynamic Models, 1989
Co-organizer, Conference on Nonparametric and Semiparametric Methods in Statistics and Econometrics, May 1988

Editorial Service

Scholarly Journals, Approximately 7-10 per year, Referee, 1977 - present
NSF Panel: Innovative Multidiscplinary Methods in Computing, Panelist, February, 2008,2009
Journal of Financial Econometrics, Co-Editor, 2006 - present
Journal of Econometrics, Associate Editor, 2006 - 2008
Journal of Econometrics, Co-Editor, Special Issue: Frontiers of Financial ..., 2003
Journal of Dynamic Macroeconomics, Co-Editor, Special Issue, 1997
Journal of Business and Economic Statistics, Editor, 1992 - 1996
Journal of Empirical Finance, Associate Editor, 1991 - 1992
Econometric Theory, Associate Editor, 1989 - 1992
Econometrica, Associate Editor, 1986 - 1992
Journal of Business and Economic Statistics, Associate Editor, 1986 - 1989
Journal of the American Statistical Association, Associate Editor, 1984 - 1989

Professional Service

Internal Service

President's Advisory Committee on Investment Responsibility, Chair, July 1, 2006 - June 30, 2010
Duke University Research Committee, Member, September 1, 2002 - June 30, 2006
APT: Provost's Advisory Committee on Appointments, Promotions, and Tenure, September 1, 2004 - June 30, 2005
Provost's Advisory Committee on Appointments, Promotions, and Tenure, Chair(September 2001-June 2002), September 1999-June 2002
Provost's Advisory Committee on Distinguished Professors, Member, Spring 1999
Arts and Sciences Computing Committee, Chair
Department of Economics, Director of Graduate Studies, 1990-1992, 1997-1998
Senior Econometrics Search
Review Committee for Bjorn Eraker, Chair, November, 2007
Faculty Review Committee for Xianhong Chen, Chair
Review Committee for outside appointment with tenure, Member
Econometrics Search Committee, Member

Review Committee for outside appointment with tenure, Chair
MA Program, Department of Economics, Coordinator, 1992-1994
Review Committee for promotion to full rank of Fuqua candidate, Member, 1994

External Service

Program Chair, Program Chair, 2007 North American Meeting of the Ecnomoetric Society, 2007
Business and Economics Section of the American Statistical Association, Chair, 1997-1998
Program Committee, 1996 Summer Meeting of the Econometric Society, Member, 1996
Program Committee, Twelfth World Congress of the Econometric Society, Member, 1995
Program Committee, 1988 Winter Meetings of the Econometric Society, Member, 1988
1986 Summer Meeting of the Econometric Society, Local Arrangements Chairman, 1986

Publications

Books

1. *Nonparametric and Semiparametric Methods in Econometrics and Statistics*, in Proceedings of the Fifth International Symposium in Economic Theory and Econometrics, edited by George Tauchen with William A. Barnett and James Powell (1991), Cambridge University Press.

Papers Published

1. G. Tauchen and A. R. Gallant, *Simulated Score Methods and Indirect Inference for Continuous Time Models*, in Handbook of Financial Econometrics (2009).
2. G. Tauchen, T. Bollerslev, and H. Zhou, *Expected Stock Returns and Variance Risk Premia*, Review of Finanial Studies (2009).
3. G. Tauchen with Tim Bollerslev, Uta Kretschmer, and Christian Pigorsch, *A Discrete-Time Model for Daily S&P500 Returns and Realized Variations: Jumps and Leverage Effects*, Journal of Econometrics (2009).

Papers Accepted

1. G. Tauchen with Hao Zhou, *Realized jumps on financial markets and predicting credit spreads*, Forthcoming in the Journal of Econometrics (2009).
2. G. Tauchen and V. Todorov, *Activity Signature Functions for High-Frequency Data Analysis*, Journal of Econometrics (2009).

Papers Submitted

1. T. Bollerslev, N Sizova, G. Tauchen, *Volatility in Equilibrium: Asymmetries and Dynamic Dependencies*, Journal of Financial Economics (2009).
2. G. Tauchen and V. Todorov, *Volatility Jumps*, Journal of Business and Economic Statistics (2009).
3. G. Tauchen and Viktor Todorov, *Functional Central Limit Theorems for Power Variations with Application to Activity Estimation*, Annals of Probability (2009).
4. G. Tauchen with Ivan Shaliastovich, *Pricing Time Deformation Risk, Volatility Risk, and Levy Jump-Type Risk*, Journal of Economic Dynamics and Control (2008).

Journal Articles

1. G. Tauchen, with T. Bollerslev and T. Tzou, *Risk, Jumps, and Diversification*, Journal of Econometrics, vol. 144 no. 1 (May, 2008), pp. 234-56.

2. G. Tauchen with A. R. Gallant and R. Bansal, *Rational Pessimism, Rational Exuberance, and Asset Pricing Models*, Review of Economic Studies, vol. 74 no. 4 (Fall, 2007).
3. G. Tauchen with V. Todorov, *Simulation Methods for Levy-Driven CARMA Stochastic Volatility Models*, Journal of Business and Economic Statistics, vol. 24 no. 4 (October, 2006), pp. 455-469.
4. G. Tauchen with T. Bollerslev and J. Litvinova, *Leverage and Volatility Feedback Effects in High-Frequency Data*, Journal of Financial Econometrics, vol. 4 no. 3 (2006), pp. 353-384.
5. G. Tauchen with X. Huang, *The Relative Contribution of Jumps to Total Price Variance*, Journal of Financial Econometrics, vol. 3 no. 4 (Fall, 2005), pp. 456-499, Oxford University Press.
6. G. Tauchen with Ravi Bansal and Hao Zhou, *Regime-Shifts in Term Structure, Expectations Hypothesis Puzzle, and the Real Business Cycle*, Journal of Business and Economic Statistics (October, 2004).
7. G. Tauchen and E. Ghysels, *Frontiers of Financial Econometrics and Financial Engineering*, Journal of Econometrics, vol. 116 no. 1-2 (2003), pp. 1-7.
8. G. Tauchen with M. Chernov, A. R. Gallant, and E. Ghysels, *Alternative Models for Stock Price Dynamics*, Journal of Econometrics, vol. 116 no. 1 (2003), pp. 225-258.
9. G. Tauchen, *The Bias of Tests for a Risk Premium in Forward Exchange Rates*, Journal of Empirical Finance (2002).
10. G. Tauchen, *Numerical Techniques for Maximum Likelihood Estimation of Continuous-Time Diffusion Processes: Comment*, Journal of Business and Economic Statistics, vol. 20 no. 3 (2002), pp. 331-32.
11. G. Tauchen, *Notes on Financial Econometrics*, Journal of Econometrics, vol. 100 no. 1 (2001), pp. 57-64.
12. G. Tauchen with C. S. Chung, *Testing Target-Zone Models Using Efficient Method of Moments*, Journal of Business and Economic Statistics, vol. 19 no. 3 (2001), pp. 255-69 (2000 Invited Address of the Journal of Business and Economic Statistics, delivered at the Annual Meeting of the Amercian Statistical Association.).
13. G. Tauchen with A. R. Gallant, *The Relative Efficiency of Method of Moments Estimators*, Journal of Econometrics, vol. 92 no. 1 (1999), pp. 149-172.
14. G. Tauchen with Chiente Hsu and A. R. Gallant, *"Using Daily Range Data to Calibrate Volatility Diffusions and Extract the Forward Integrated Variance"*, Review of Economics and Statistics, vol. 81 no. 3 (November 1999).
15. G. Tauchen, *Efficient Estimation of Multivariate Diffusions with Applications from Finance*, in Bulletin of the International Statistical Association, 1999 (1999).
16. G. Tauchen, *"The Objective Function of Simulation Estimators Near the Boundary of the Parameter Space"*, Review of Economics and Statistics, vol. 80 no. 3 (November, 1998), pp. 389-298.
17. G. Tauchen with A.R. Gallant, *Reprojecting Partially Observed Systems with Applications to Interest Rate Diffusions*, Journal of the American Statistical Association, vol. 93 (March, 1998), pp. 10-24.
18. G. Tauchen with A.R. Gallant and D. Hsieh, *"Estimation of Stochastic Volatility Models with Diagnostics"*, Journal of Econometrics, vol. 81 (1997), pp. 159-192.
19. G. Tauchen with A.R. Gallant, *Estimation of Continuous Time Models for Stock Returns and Interest Rates*, Macroeconomic Dynamics, vol. 1 no. 1 (1997), pp. 135-168.
20. G. Tauchen wiht A. Ronald Gallant, *"Which Moments to Match"*, Econometric Theory, vol. 12 no. 4 (October, 1996), pp. 657-681.
21. G. Tauchen with Harold Zhang and Ming Liu, *"Volume, Volatility, and Leverage: A Dynamic Analysis"*, Journal of Econometrics, vol. 74 no. 1 (September, 1996), pp. 177-208.
22. G. Tauchen with R. Bansal, Robert Hussey, and A.R. Gallant, *"Nonparametric Estimation of Structural Models for High Frequency Currency Market Data"*, Journal of Econometrics, vol. 66 no. 1/2 (March/April 1995).
23. G. Tauchen with A.R. Gallant and Peter Rossi, *"Nonlinear Dynamic Structures"*, Econometrica, vol. 61 no. 4 (July, 1993), pp. 871-907.
24. G. Tauchen with R. Bansal, Robert Hussey, and A.R. Gallant, *"A Nonparametric Simulation Estimator for Nonlinear Structural Models"*, Computational Economics and Econometrics (1993).
25. G. Tauchen with A. R. Gallant and P. E. Rossi, *Stock Prices and Volume*, Review of Financial Studies, vol. 5 no. 2 (1992), pp. 199-242.
26. G. Tauchen with R. Hussey, *Quadrature-Based Methods for Obtaining Approximate Solutions to*

Nonlinear Asset Pricing Models, Econometrica, vol. 59 no. 2 (March, 1991), pp. 371-396.

27. G. Tauchen, *Solving the Stochastic Growth Model by Using Quadrature Methods and Value Function Iterations*, Journal of Business and Economic Statistics, vol. 8 no. 1 (January, 1990).
28. G. Tauchen with A.R. Gallant and L. P. Hansen, *"Using Conditional Moments of Asset Returns to Infer the Volatility of Intertemporal Marginal Rates of Substitution"*, Journal of Econometrics, vol. 45 no. 112 (July/August 1990), pp. 141-180.
29. G. Tauchen with A.R. Gallant, *"Seminonparametric Estimation of Conditionally Constrained Heterogeneous Processes: Asset Pricing Applications"*, Econometrica, vol. 57 no. 5 (September, 1989), pp. 1091-1120.
30. G. Tauchen, *"Statistical Properties of GMM Estimates of Structural Parameters Using Financial Market Data"*, Journal of Business and Economic Statistics, vol. 4 (October, 1986) (Given as the Invited Address for the Business and Economics Section of the 1986 Meeting of the American Statistical Association, Chicago; published with commentary.).
31. G. Tauchen, *Finite State Markov Chain Approximations to Univariate and Vector Autoregressions*, Economic Letters, vol. 20 no. 2 (March, 1986), pp. 177-181.
32. G. Tauchen, *"A Note on the Asymptotic Lower Bound for the Covariance Matrix of the GMM Estimator of the Parameters of Agents' Utility Functions"*, Economics Letters, vol. 20 no. 2 (March, 1986), pp. 151-155.
33. G. Tauchen, *Comment on Wood, McInish, and Ord*, Journal of Finance (July, 1985).
34. G. Tauchen, *Diagnostic Testing and Evaluation of Maximum Likelihood Models*, Journal of Econometrics, vol. 30 (1985), pp. 415-443 (Presented at the Conference on New Methods in Econometrics, Austin Texas, May 1984.).
35. G. Tauchen with Philip Cook, *The Effect of Minimum Drinking Age Legislation on Youthful Auto Fatalities, 1970-77*, Journal of Legal Studies, vol. XIII (January, 1984), pp. 169-190.
36. G. Tauchen with Mark Pitts, *"The Price-Variability Relationship on Speculative Markets"*, Econometrica, vol. 51 no. 2 (March, 1983), pp. 485-506.
37. G. Tauchen with Michael K. Salemi, *"Estimation of Nonlinear Learning Models"*, The Journal of the American Statistical Association, vol. 77 no. 380 (December, 1982), pp. 725-731.
38. G. Tauchen with Philip Cook, *The Effect of Liquor Taxes on Heavy Drinking*, The Bell Journal of Economics, vol. 13 no. 2 (Autumn 1982), pp. 379-390.
39. G. Tauchen, *Some Evidence on Cross-Sector Effects of the Minimum Wage*, Journal of Political Economy, vol. 89 no. 3 (June, 1981), pp. 529-547.
40. G. Tauchen with Michael K. Salemi, *Guessing and the Error Structure of Learning Models*, American Economic Review, vol. 70 no. 3 (May, 1980), pp. 41-46.

Chapters in Books

1. *Continuous-Time Methods and Market Microstructure*, in International Library of Financial Econometrics, vol. 4 (2007), pp. 95-97.
2. G. Tauchen, *New Minimum Chi-Square Methods in Empirical Finance*, in Advances in Economics and Econometrics: Theory and Applications, Econometric Society Monographs, edited by Kenneth F. Wallis and David M. Kreps, vol. III no. 28 (1997), pp. 279-317, Cambridge University Press (Invited Address for the Seventh World Congress of the Econometric Society, Tokyo, 1995.).
3. G. Tauchen with A. Ronald Gallant, *"Specification Analysis of Continuous Time Models in Finance"*, in Modeling Stock Market Volatility: Bridging the Gap to Continuous Time, edited by Peter E. Rossi (1996), pp. 357-383, Academic Press.
4. G. Tauchen, *"A Nonparametric Approach to Nonlinear Time Series: Estimation and Simulation"*, in New Directions in Time Series Analyses, Part II (1992), New York: Springer-Verlag.
5. G. Tauchen with A.R. Gallant and D. Hsieh, *"On Fitting a Recalcitrant Series: The Pound/Dollar Exchange Rate, 1974-1983"*, in Nonparametric and Semiparametric Methods in Econometrics and Statistics, edited by W. Barnett, J. Powell, and G. Tauchen (1991), Cambridge University Press.
6. G. Tauchen with M.K. Salemi, *"Simultaneous Nonlinear Learning Models"*, in Econometric Modeling in Economic Education Research, edited by W. Becker and W. Walstead (1987), pp. 207-221, Klumer-

Nijhoff.

7. G. Tauchen, *"Comments on Cinar, Abowd and Zellner, and Nestel"*, Proceedings of the 1983 Meetings of the American Statistical Assocation: Business and Economics (1983).
8. G. Tauchen with Javier Salas, *"A Dynamic Rational Expectations Macroeconomic Model of Mexico"*, in Applied Time Series Analysis, edited by M.R. Perryman (1982), pp. 349-358, North-Holland Publishing Company.
9. G. Tauchen, *"Temporal Aggregation and Testing for Econometric Exogeneity"*, in Time Series Analysis, edited by O.D. Anderson and M.R. Perryman (1981), pp. 569-574, North Holland Publishing Company.

Working Papers

1. G. Tauchen with A. R. Gallant, *EMM: A Program for Efficient Method of Moments* (Summer, 2005).
2. G. Tauchen, *Stochastic Volatility in General Equilibrium* (Summer, 2005).
3. G. Tauchen with A. R. Gallant, *SNP: A Program for Nonparametric Time Series Analysis* (Summer, 2004).
4. G. Tauchen, *Recent Developments in Stochastic Volatility: Statistical Modelling and General Equilibrium Analysis* (Summer, 2004).
5. G. Tauchen, M. Chernov, A. R. Gallant, and E. Ghysels, *A New Class of Stochastic Volatility Models with Jumps: Theory and Estimation* (1999) (under revision.).

Other

1. G. Tauchen, *"An Appraisal of the Precision of Box-Jenkins Intervention Analysis"* (October, 1982) (Working Paper.).

Selected Recent Invited Talks

2009 Meeting of the Latin American Econometric Society Region, Buenos Aires, October 01, 2009
Conference in Honor of Life Work of Adrian Pagan, Sydney, Australia, July 10, 2009
Financial Econometrics Seminar, Stern School, New York University, November, 2008
Vast Data Conference, London, England, September, 2008
Symposium on High Frequency Financial Econometrics, Aarhus, Denmakr, August, 2008
Probablity and Finance Conference, Munich, Germany, July, 2008
SITE Workshop on High Frequency Data Analysis, Stanford University, June, 2008
Symposium on Nonlinear and Nonparametric Time Series, Xiamen China, May 12, 2008
Visitor, Federal Reserve Bank of Atlanta, October 2-5, 2007
NSF-NBER Time Series Conference, Iowa City, Iowa, October, 2007
Conference on Financial Econometrics, London, England, May, 2007
Leverage and Volatility, Federal Reserve Bank of Atlanta, April 15, 2006
Asian Symposium on Econometric Theory and Applications (ASETA), Taipei, Taiwan, May 19, 2005
Invited Lecture, Joint Meeting of the European Econometric Society and the European Economics Association, Madrid, Spain, September 2004
Lectures on Financial Econometrics, Uppsala, Sweden, October 2003
Models for Stock Price Dynamics, Nuffield College, Oxford University, October 2001
Lectures on Financial Econometrics: 2001 CIDE, Italian Centre for Econometrics, Econometrics Summer School, Bertinoro Italy, June 2001
Invited Address, American Statistical Association, B&E Section, Indianapolis, August 2000
Lectures on Financial Econometrics, University of Zurich, Switzerland, May 1997
Lectures on Financial Econometrics, Institute for Advanced Studies (IAS), Vienna, Austria, May 1996
Invited Address for the Seventh World Congress of the Econometric Society, August 1995
Invited Address for Business and Economics Section of the 1986 Meetings of the American Statistical

Association, 1986

Doctoral Theses Directed

Viktor Todorov, High Frequency Finanical Econometrics, (2007)
Duy Tran, Structural Models for High Frequency Data Analysis, (2007)
Jon Tang, Essays on Volatility Transmission, (2002)
Bin Zhang, Essays on Specification Analysis, (2001)
Christian Lundblad, (2000)
Hao Zhou, Small Sample Properties of the Efficient Method of Moments, (January 01, 1997 - April 05, 2000)
Chaeshick Chung, "Specification and Estimation of Target Zone Models for Foreign Exchange Markets", (1998)
Adrian Austin, Interest Rates and Regime Shifts, (1998)
Waping Wang, Essays on Financial Volatility, (1998)
Scott Mixon, Estimation of Diffusions, (1997)
Ming Liu, Essays in Financial Volatility, (April 1996)
Romulo Chumacero, Intertemporal Asset Pricing without Consumption Data: An Application of the Efficient Method of Moments Estimation Technique, (1995)
Paige Wellensiek, Modeling the Term Structure of Interest Rates, (1995)
Harold Zhang, Estimation and Calibration of Heterogeneous-Agent Models, (1994)
Shigeyuki Hamori, Tests of the Asset Pricing Model in a Monetary Economy: Some Evidence from the U.S.A. and Japan, (1991)
George Mokrzan, Aggregate Shocks and the Test of the Sectoral Employment Demand Hypothesis, (1990)
Joo-Ha Nam, Habit-Persistence/Durability, Taxation and Seasonality in Consumption-Based Asset Pricing Model, (1990)
Robert Hussey, Seminonparametric Modeling of Aggregate Employment Dynamics, (1989)
Marilyn Dutton, International Real Interest Equality Based on Price Indexes for Traded Goods, (1989)
Allan Brunner, Nonlinearities in U.S. Business Cycles, (1989)
Peter Muoio, Empirical Tests of the Utility-Based Asset Pricing Model Using Temporally Aggregated Twentieth Century Data, (1988)
Anthony Becker, An Econometric Analysis of the Nuclear Arms Race, (1986)
Charles Gilbert, A Panel Data Approach to Testing the Natural Rate Hypothesis, (September 1984)
Mark Kumm, Comparison of the Generalized Box-Cox and Fourier Functional Forms for Analysis of Time-of-Use Electricity Pricing Experiments, (1981)
Augusto Lopex, Inflation and Exchange Rates in Latin America, (December 1981)
Mark Pitts, The Relationship of Trading Volume to the Probability Distribution of Speculative Price Changes, (1980)
Javier Salas, A Rational Expectations Macroeconomic Model of the Mexican Economy, (1979)

Conference Invitations and Seminar Invitations:

3-5 major national and international conferences per year

Seminars given at every major research university

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