CURRICULUM VITAE
(March 2019)

Albert Tsui Ka Cheng
Department of Economics
National University of Singapore
Kent Ridge, Singapore 119260
Singapore

Email ecsatsui@nus.edu.sg
Phone 65-6516-3952

Personal Information

Current Position:	Associate Professor (tenured)
Nationality:	Singapore Citizen
Sex:	Male
Marital Status:	Married with one daughter

Education
B.Soc.Sc. (Hons, Economics), Chinese University of Hong Kong, 1977
M.Sc. (Economics), University of Kentucky, 1985
Ph.D. (Econometrics), University of Kentucky, 1989

Professional Qualification

Associate, Society of Actuaries, USA since 1993
Fellow, Royal Statistical Society, United Kingdom since 1992
Research Associate, Centre for Financial Engineering, NUS since 2000

Working Experience
Teaching Assistant, Chinese University of Hong Kong, 1977-78
Liaison Officer, Hong Kong Government, 1978-80
Commission Against Corruption Officer, ICAC, Hong Kong Government, 1980-82
Transport Officer, Transport Department, Hong Kong Government, 1982-84
Research Assistant, University of Kentucky, 1984-86
Instructor, University of Kentucky, 1986-1989
Lecturer (6/1989-6/1995) & Senior Lecturer (7/1995-6/1999), National University of Singapore

Current: Associate Professor, National University of Singapore since 7/1999

Consultancy Experience
Singapore Institute of Marketing, 1993-94
Singapore Institute of Management, 1994-96
The Institute of Banking and Finance, 1995
Centre for Financial Engineering at NUS, 1999-present
Ministry of Foreign Affairs, 2001-02
Mapletree on Home Conversion Project, 2004
Central Provident Fund Board on Adequacy of Singaporean Savings, 2005-2006
Ministry of Man-Power, Singapore on income replacement rate after retirement, 2012

Visiting Positions
Visiting Scholar, Department of Economics, University of Illinois at Urbana-Champaign USA, from June 1996 to May 1997

Visiting Scholar under the 1998 New Scientific Exchange Programme of the Japan Society for the Promotion of Science at Kyoto University and the University of Hiroshima from June 1998 to July 1998

Visiting Scholar, Department of Demography, University of California at Berkeley, USA, from January-May 2001

Visiting Scholar, Department of Economics, University of California at Berkeley, USA, from August-December 2004

Visiting Scholar under the 2002 New Scientific Exchange Programme of the Japan Society for the Promotion of Science at Hitotsubashi University and the Aoyama Gakuin University from June-July 2002; and May-June 2007

Visiting Scholar under the Sumitomo Foundation Research Project Award at Hitotsubashi University from June-July 2004

Visiting Researcher, Hong Kong University of Science and Technology, Hong Kong December 2007

Visiting Researcher, Institute of Economic Research, Hitotsubashi University from January-February 2008, November 2011, January 2014, April-June 2015

Visiting Researcher, Department of Finance, Tilburg University, the Netherlands, March 2008 to July 2008

Visiting Researcher, University of Chicago, August-October 2011

Visiting Researcher, University of Hong Kong, December 2011, February 2013, December 2014 and December 2018

Visiting Researcher, Department of Econometrics and Business Statistics, Monash University, February-March 2015

Visiting Researcher, Melbourne Institute of Applied Economic and Social Research, University of Melbourne, August-November 2018

Teaching Experience

Undergraduate Courses at the University of Kentucky

1. Business and Economic Statistics (Year 3) 1986-1989, introductory course in quantitative methods

Undergraduate Courses at the National University of Singapore

1. Macroeconomics (Year 1) 1989-90, an introductory course for economics major students

2. Applied Econometrics (Year 3) 1989-91, a second course in econometrics for economics major students

3. Mathematical Economics (Year 2) 1990-91, a second course in quantitative methods for economics major students

4. Advanced Econometrics (Year 4) 1991-93, a second course in econometrics

5. Actuarial Mathematics (Year 4) 1993-94, an advanced course in theories of interest, annuities, life insurance and reserves

6. Financial Economics I (Year 3) 1993-2000, a first course in investment

7. Financial Economics II (Year 4) 1994-95 and 2001-present, an advanced course in financial economics

8. Econometrics III (year 4) 2017, an advanced course in econometrics

Graduate Courses at the National University of Singapore

1. Derivative Securities, 1994-96 and 1997-2004
2. Financial Economics, 1999-2002
3. Fixed Income Securities, 2000-2001 and 2003-2010
4. Financial Econometrics, 2002-2012

Graduate Research Supervision at the National University of Singapore

Number of PhD Theses Supervision: 5
Number of M.Soc.Sc Theses Supervision: 7
Number of Honours Year Theses Supervisions: 58

Teaching Areas

Actuarial Science
Financial Econometrics
Financial Economics
Fixed Income and Derivatives
Time Series Analysis

Current Research Interests

Finite sample distribution of OLS estimator in AR(1) models
Stochastic foresting of mortality rates and life expectancies
Social security and retirement adequacy in Singapore
Relative distribution of income, wealth and health variables

Publications

1. "Exact Moments of the Least Squares Estimator in a First Order Stationary Autoregressive Model", with M. M. Ali, in M. T. Chao and P. E. Cheng (eds.), *Proceedings of the 1990 Taipei Symposium in Statistics*, Institute of Statistical Science, Academia Sinica, Taipei, 1990, 539-554.

2. "Exact Moments of the Least Squares Estimator in A First Order Non-Stationary Autoregressive Model", with M. M. Ali, *Osaka Economic Papers*, 1991, 40, 284-301.

3. "Numerical Computation of Exact Distribution of First Order Stochastic Difference Equations", in Y. Dodge and J. Whittaker (eds.), *Computational Statistics*, Vol. 1, Germany: Physica-Verlag, 1992, 359-363.

4. "Approximations to the Distribution of the Least Squares Estimator in A First Order Stationary Autoregressive Model", with M. M. Ali, *Communications in Statistics-Simulations and Computation*, 21(2), 1992, 463-484.

5. "Numerical Computation of Exact Moments of the Least Squares Estimator in A First Order Stationary Autoregressive Model", with M. M. Ali, *Journal of Computational Statistics and Simulation*, 42, 1992, 65-78.
6. "Exact Distributions, Density Functions and Moments of the Least Squares Estimator in A First Order Autoregressive Model", with M. M. Ali, *Computational Statistics and Data Analysis*, 17, 1993, 433-454.

7. "Stochastic Modelling of Forces of Interest with Applications to Actuarial Functions" in R. Dutter and W. Grossmann (eds.),

Proceedings of the 11th *Symposium on Computational Statistics*, Austria, 1994, 123-124.

8. "Empirical Comparison of Finite Sample Distribution of the Least Squares Estimator in A Non-Stationary Autoregressive Model", *Journal of Statistical Computation and Simulation*, 48, 1994, 1-9.
9. "Long Memory Volatility in Stock Returns: Evidence from Four Asia-Pacific Markets", with Y.K. Tse, *Research in Finance*, 2, 1996, 33-54.

10. "Conditional Volatility in Foreign Exchange Rates: Evidence from the Malaysian Ringgit and Singapore Dollar", with Y.K. Tse, *Pacific-Basin Finance Journal*, 5, 1997, 345-356.

11. "On Tests for Long Memory in Pacific-Basin Stock Returns", with W.S. Chan, *Mathematics and Computers in Simulation*, 43, 1997, 445-449.

12. "Constant Conditional Correlation in Bivariate GARCH Models: Evidence from the Stock Markets in China", with Q. Yu, *Mathematics and Computers in Simulation*, 48, 1999, 503-509.

13. "A Note on Diagnosing Multivariate Conditional Heteroscedasticity", with Y.K. Tse, *Journal of Time Series Analysis*, 20(6), 1999, 679-691.

14. "Procuring Honest Response Indirectly", with T.C. Chua, *Journal of Statistical Planning and Inference*, 90, 2000, 107-116.

15. "Monetary Services Index and Money Demand in China", with Q. Yu, *China Economic Review*, 11(2), 2000, 134-148.

16. "Ownership and Use Taxes as Congestion Correcting Instruments ", with N.C. Chia and John Whalley, *NBER Working Paper*, No: 8278, 2001, 1-20.

17. "Evaluating the Hedging Performance of GARCH Strategies", with Y.K. Tse and D. Lien, *Applied Financial Economics,* 11, 2002, 791-798.

18. "OLS Bias and MSE in the Random Walk Model with a Constant Initial Value", with M.M. Ali, *Journal of Applied Statistical Science*, 2002, 11, 9-19.

19. "A Multivariate GARCH Model with Time-varying Correlations", with Y.K. Tse, *Journal of Business and Economic Statistics,* 20(3), 2002, 351-362.

20. "Life Annuities of Compulsory Savings and Income Adequacy of the Elderly in Singapore", with Chia Ngee Choon, *Journal of Pension Economics and Finance,* 2003, 2(1), 41-65.

21. "Small Sample Forecasting: Regression or ARIMA Models?" with T. Abeysinghe and U. Balasooriya, *Journal of Quantitative Economics,* 2003, 1(1), 103-113.

22. "Asymmetric Volatility of Real GDP: Some Evidence from Japan, the United Kingdom and the United States", with K.Y. Ho, *Japan & the World Economy* 2003, 437-445.

23. "Diagnostics for Conditional Heteroscedasticity Models: Some Simulation Results", *Mathematics and Computers in Simulation*, 2004, 64, 113-119.

24. "Analysis of Real GDP Growth Rates of Greater China: An Asymmetric Conditional Volatility Approach", with K.Y. Ho, *China Economic Review,* 2004, 15, 424-442.

25. "Conditional Heteroscedasticity of Exchange Rates: Further Results based on the Fractionally Integrated Approach", with K.Y. Ho, *Journal of Applied Econometrics*, 2004, 19, 637-642.

26. "Analytically calibrated Box-Cox percentile limits for duration and event-time models", with Z. Yang, *Insurance: Mathematics and Economics,* 2004, 35, 649-677.

27. "Medical Savings Accounts in Singapore: How Much is Adequate?" with Chia Ngee Choon, *Journal of Health Economics*, 2005, 24(5), 855-875.

28. "An Analysis of the Conditional Volatility Dynamics of the Australian Business Cycle" with K. Y. Ho and Z. Zhang, *Journal of Economic Development,* 2007, 32(2), 157-182.

29. "Exchange Rate Exposure of Sectoral Returns and Volatilities: Evidence from Japanese Industrial Sectors" with P. Jayasinghe, *Japan and the World Economy*, 2008, 20(4), 639-660.

30. "Volatility Dynamics of the US Business Cycle: A Multivariate Asymmetric GARCH Approach", with K. Y. Ho and Z. Zhang, *Mathematics and Computers in Simulation,* 2009, 2856-2868.

31. "Volatility Dynamics in Foreign Exchange Rates: Further Evidence from the Malaysian Ringgit and Singapore Dollar", with K. Y. Ho, *Annals of Financial Economics*, 2009, 828-834.

32. "Volatility dynamics of the UK business cycle: A multivariate asymmetric GARCH approach", with K. Y. Ho and Z. Zhang, *Economie Internationale*, 117, 2009: 31-46.

33. Jayasinghe, P., A.K. Tsui and Z. Y. Zhang (2011), Modeling exchange rate exposure in the Japanese industrial sectors, In F. Chan, D. Marinova & R.S. Anderssen (eds.), *Proceedings of 19th International Congress on Modelling and Simulation: Sustaining our future*, MSSANZ Inc., pp. 1561-1567.

34. Jayasinghe, P., A.K. Tsui and Z. Y. Zhang (2011). Modeling Time-Varying Currency Betas: New evidence from the selected markets, In F. Chan, D. Marinova and R.S. Anderssen (eds.), *Proceedings of 19th International Congress on Modelling and Simulation: Sustaining our future,* MSSANZ Inc., pp. 1568-1574.

35. Yin, Z., A.K. Tsui and Z. Y. Zhang (2011). Modelling the Conditional Heteroscedasticity and Leverage Effect in the Chinese stock markets, In F. Chan, D. Marinova and R.S. Anderssen (eds.), *Proceedings of 19th International Congress on Modelling and Simulation: Sustaining our future,* MSSANZ Inc., pp. 1338-1344.

36. Ho, K.Y., A.K. Tsui and Z. Y. Zhang (2011). Modeling the Conditional Volatility Asymmetry of business cycles in four OECD countries: A multivariate GARCH approach, In F. Chan, D. Marinova and R.S. Anderssen (eds.), *Proceedings of 19th International Congress on Modelling and Simulation: Sustaining our future,* MSSANZ Inc., pp. 1533-1539.

37. Fei, P., AK Tsui & Z. Y. Zhang (2011). East Asian Financial Crisis Revisited: What does a copula tell? *International Journal of Business Studies,* 19(1), pp. 29-51.

38. Sohn, C.H., AK Tsui, F Zhang & Z. Y. Zhang (2012). An Empirical Assessment of A-Share IPO Under-Pricing in China, *Seoul Journal of Business,* 18(1), 25-57.

39. Hai, V. T., A. K Tsui & Z. Y. Zhang (2013). Measuring Asymmetry and Persistence in Conditional Volatility in Real Output: Evidence from Three East Asian Tigers Using a Multivariate GARCH approach, *Applied Economics* (Routledge: Taylor & Francis Group), Vol. *45*(20), pp. 2909-2914.

40. Ho, K.Y., A.K. Tsui & Z. Y. Zhang (2013). Conditional Volatility Asymmetry of Business Cycles: Evidence from four OECD countries, *Journal of Economic Development*, vol. 38 (3), pp. 33-56.

41. Shen, X., A.K. Tsui & Z. Y. Zhang (2013). Modelling the Volatility-Timing of Funds under CPF Investment Scheme, In Bob Anderssen, John Boland and Julia Piantadosi (eds.), *Proceedings of 20th International Congress on Modelling and Simulation: Adapting to Change: the multiple roles of modeling.* Australia.

42. Tsui, A.K., J. X. Wu & Z. Y. Zhang (2013). Modelling the term structure of Japanese bond yields with the Nelson-Siegel model, In Bob Anderssen, John Boland and Julia Piantadosi (eds.), P*roceedings of 20th International Congress on Modelling and Simulation: Adapting to Change: the multiple roles of modeling*.

43. Tsui, A.K., C.Y. Xu & Z. Y. Zhang (2013). Forecasting Singapore Economic Growth with Mixed-Frequency Data, In Bob Anderssen, John Boland and Julia Piantadosi (eds.), *Proceedings of 20th International Congress on Modelling and Simulation: Adapting to Change: the multiple roles of modeling*. Australia.

44. Long, L., A. K Tsui & Z. Y. Zhang (2014). “Conditional Heteroscedasticity with Leverage Effect in Stock Returns: Evidence from the Chinese Stock Market”, *Economic Modelling* (Elsevier, North-Holland), 37(2), pp. 89-102.

45. Jayasinghe, P., A. K Tsui & Z. Y. Zhang (2014). **“**Exchange Rate Exposure of Sectoral Returns and Volatilities: Further evidence from Japanese industrial sectors”, *Pacific Economic Review* (Wiley-Blackwell), vol. 19(2), pp. 216-234.

46. Long, L., A. K Tsui & Z. Y. Zhang (2014). “Estimating Time-Varying Currency Betas with Contagion: New Evidence from Developed and Emerging Financial Markets” in *Japan and the World Economy* (Elsevier), 30, pp. 10-24.

47. Jayasinghe,L., A. K Tsui & Z. Y. Zhang (2014). “New estimates of time-varying betas: A trivariate BEKK approach”, *Economic Modelling* ((Elsevier, North-Holland), 42, pp. 128-139.

48. Chia, N.C. and A. K Tsui (2015). “Structuring the payout phase in a defined contribution scheme in high income countries: Experiences of Singapore”, in a book edited by Mukul Asher, London: Routledge, 34 pp.

49. Wong, C.H. and A. K. Tsui (2015). “Forecasting life expectancy: Evidence from a new survival function”, *Insurance: Mathematics and Economics*, 65, pp. 208-226.

50. Tsui, A. K., Xu, C.Y. and J. Y. Zhang (2018) “Macroeconomic forecasting with mixed data sampling frequencies: Evidence from a small open economy”, forthcoming, *Journal of Forecasting*, 37(6), pp. 666-676.

51. Chia, N. C. and A. K. Tsui (2019) “Nexus in housing and pension policies in Singapore: Measuring retirement adequacy of the Central Provident Fund”, *Journal of Pension Economics and Finance*, 18(2), pp. 304-330.

52. Lau, S.H. and A. K. Tsui (2019) “Economic-demographic dependency ratio in a life-cycle model”, forthcoming, *Macroeconomic Dynamics.*

Academic Administrative Experience (in last 8 years)

1. Assistant Head, Department of Economics, 2008-2009, 2010-11

2. Deputy Head, Department of Economics, 2009-2010

3. Member, Graduate Scholarships Selection Committee, FASS, 2011-2015

4. Chairman, Examination Matters Committee, 2011-present

5. Chairman, Teaching Evaluation Committee, 2008-present