

RMI Research Workshop Series

	Session 1	Session 2
Speaker:	Dr Rachida Ouyse University of New South Wales	Prof Larry Tzeng National Taiwan University
Title:	Bayesian Selection of Risk Factors and Estimation of Risk Premiums in the APT model	Testing Advantageous Selection by Hidden Action: Evidence from Automobile Liability Insurance
Date / Time:	5th December 2008, 3.00pm – 4.10pm	5th December 2008, 4.30pm – 5.40pm
Venue:	Lim Tay Boh Seminar Room (AS2 #03-12), 1 Arts Link, Singapore 117570	
Chair-person:	Prof Xia Yingcun, National University of Singapore	

Light refreshments will be served during the break (4.10pm – 4.30pm)

Session 1: Abstract

Empirical tests of the arbitrage pricing theory using measured variables rely on the accuracy of standard inferential theory in approximating the distribution of the estimated risk premiums and factor betas. The techniques employed thus far are only accurate conditional on the factor structure being deterministic and correctly specified. This paper adapts recent advances in Bayesian analysis to an approximate factor model and investigates the role or otherwise of measured economic variables in the pricing of securities. Posterior distributions of functions of parameters provide exact statistical tools to assess the link between returns' predictability and risk and, study the time series behaviour of factor risk premiums. The results show that expected compensation for bearing systematic risk is time varying and changing with the business cycle. Findings show higher reward and higher premiums' volatility during recessions and financial distress. Finally, we find no robust empirical evidence to support the viability of Fama and French size and book-to-market factors as pervasive risk factors in the pricing of Industry and size portfolio returns.

About the speaker

Dr. Rachida Ouyse holds a PhD in Economics with from Boston College. Her fields of specialization are Econometric Theory, Time Series and Applied Econometrics. Since then, she joined the school of Economics at the University of New South Wales. Her main research work is on model selection in large panels and the related issues of inference and distributional properties of the model estimates conditional on the selection process. Her contribution to the literature is on focusing on issues of consistency and efficiency in large factor models with observable factors. Although her training is in asymptotic theory, she has been recently interested in addressing these same issues using Bayesian approach. This research has relevance in many applications in economics and finance. Dr. Ouyse has been interested in bringing these advances in econometric analysis to investigating the issues of risk factors selection and inference in the arbitrage pricing theory model. In addition, she is interested in looking into the finite sample properties of generalized methods of moment estimation in conditional moment models. In particular, the ability of bootstrap methods to address the severe small-sample problems in the GMM estimation of the consumption based CAPM.

Session 2: Abstract

This paper examines advantageous selection in automobile liability insurance from the approach with hidden action, which argues that the individual's private information on his own characteristics will affect his decision on the investment on precautionary effort (hidden action) to reduce the loss probability and further results in a negative relationship between coverage and loss probability in equilibrium. We argue that individual's vehicle maintenance record could be a proper proxy for the precautionary effort. By combining insurance data from an insurance company and maintenance data from the largest car manufacturer in Taiwan, we demonstrate advantageous selection in automobile liability insurance in Taiwan.

About the speaker

Professor Larry Y. Tzeng received his PhD in Risk Management, Insurance, and Actuarial Science, Temple University, Philadelphia, PA, U.S.A. and was previously a *Board Director* of Residential Earthquake Insurance Fund and CHUNGKUO Property/Casualty Insurance Corporation in Taiwan. He is currently in the department of finance of National Taiwan University Taipei, Taiwan and a member of Risk-Based Capital System, Insurance Commissioner Office in Taiwan. Professor Tzeng is the *Associate Editor* of the *Journal of Risk and Insurance*, *APJRI* and *Risk Management and Insurance Review*. He has published extensively on *Applied Economics*, *The Geneva Risk and Insurance Review*, *Journal of Risk and Insurance* and *Insurance: Mathematics and Economics*.