RMI Research Workshop Series

	Session 1	Session 2
Speaker:	Prof George J. Jiang University of Arizona	Prof Jerome Yen Hong Kong University of Science and Technology
Title:	New Evidence on Options Market Misreaction to Information	Continuous Setting Gaussian Generalized Lambda Distribution Model for Synthetic CDO Pricing
Date / Time:	3rd October 2008, 3.00pm – 4.10pm	3rd October 2008, 4.30pm – 5.40pm
Venue:	BIZ 2, Conference Room J, #B1-04	
Chair-person:	Prof Xia Yingcun, National University of Singapore	

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

Session 1: Abstract

Existing empirical research examines the impact of volatility shock on the relative pricing of longterm vs. short-term options and provides evidence of market misreaction to information. These studies, however, rely on implied volatilities derived from specific option pricing models and are thus subject to model specification errors. In this paper, we avoid this problem by performing new tests on options market misreaction using the model-free implied variance. More importantly, we measure market misreaction as deviations from the martingale restriction on forward variance. In contrast to previous studies [e.g., Stein (1989) and Poteshman (2001)], our tests provide no evidence of short-horizon underreaction or long-horizon overreaction to volatility shock in the options market. Instead, we find clear evidence of short-horizon overreaction (up to three trading days). We further demonstrate that the pattern of market misreaction reported in previous studies is most likely the result of model misspecification.

About the speaker

Dr. George J. Jiang, an Associate Professor of Finance (with tenure) at the Eller College of Management, University of Arizona, received his Ph.D. In Economics in 1996 from the University of Western Ontario. He has researched extensively in the area of capital market efficiency, interest rate modeling, option pricing, volatility estimation and forecasting, and evaluation of mutual fund performance. He has published in academic journals such as the Journal of Financial Economics, Review of Financial Studies, Journal of Financial and Quantitative Analysis, Journal of Econometrics, Journal of Business and Economic Statistics, Journal of Financial Econometrics, Journal of Computational Finance, Econometric Theory, and Journal of Derivatives. He currently teaches asset pricing theory, investments, derivatives, risk management, and empirical methods in finance.

Session 2: Abstract

In this paper, we propose a continuous Gaussian Generalized Lambda Distribution (Gaussian GLD) Model for pricing synthetic CDO. Traditional approaches include One-Factor-Gaussian-Copula model. However, such model has several drawbacks. For example, the only unknown of such model is ρ - the correlation. However, in CDO, there are five tranches and ρ is not a constant, which is called Correlation Smile. In order to pricing such products more accurately, we have to estimate their skewness and kurtosis, or so called the correlation smile. However, with One-Factor-Gaussian-Copula, such measurement was impossible. Therefore, we need a model that can better capture such correlation smile. The continuous setting comes from two aspects: Continuity in time and continuity in tranchlets. We model the common factor or systematic risk with normal distribution according to CAPM and model the idiosyncratic risk with generalized Lambda distribution (GLD). Due to the flexibility of GLD, which is described by four parameters, the proposed model is partial distribution free and be able to fit the market price more accurately.

About the speaker

Currently, Prof. Yen is a Visiting Professor and the Director of Quantitative Finance Program in the Department of Finance at Hong Kong University of Science and Technology (HKUST). He is a member in the Academic Advisory Committee of PRMIA. He received his Ph.D. in 1992 in Systems Engineering and Management Information Systems from the University of Arizona. Before joining HKUST in 2006, he was a Senior Vice President and Deputy Chief Risk Officer at Cathay Financial Holdings (CFH), which was the largest in Taiwan with AUM greater than USD 120 Billion. Prof. Yen has taught at leading universities, such as, Carnegie Mellon University (CMU), the University of Arizona, the University of Hong Kong (HKU), and the Chinese University of Hong Kong (CUHK). His major research and teaching areas include risk management, derivatives, exotic options, structured products, and "smile". He was promoted to professor in 2001 at CUHK. He published more than forty journal papers in respectable journals. He also served in Review Panels of National Science Foundation (NSF). He was the winner of the Best Paper Award at Hawaii International Conference on System Sciences (HICSS). He provided consulting services to many organizations, for example, Stock Exchange of Hong Kong (SEHK), Invesco-Greatwall, Hang Seng Bank, and Societe Generale.

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