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財務及保險學系 Department of Finance & Insurance
香港商學研究所 Hong Kong Institute of Business Studies

ACADEMIC SEMINAR

The U.S. Property-Casualty Reinsurance Network: Microstructure, Contagion, and Performance

Reinsurance is the primary source of interconnectedness in the insurance industry and is analogous to inter-bank lending. As such, reinsurance connectivity provides a transmission mechanism for financial shocks and exposes insurers to contagion (and potential systemic) risk. It also has significant implications to firm decisions and firm performance. In this paper, connectivity within the U.S. property-casualty (P/C) reinsurance market is modeled as a network. This research is the first detailed empirical analysis of the microstructure of the U.S. P/C reinsurance market. We find that reinsurance networks are highly sparse, and exhibit hierarchical core-periphery structure. Our results reveal that even the failure of the top ten reinsurers with 100 percent loss given default would not lead to widespread insolvencies among primary insurers. Moreover, we find that the reinsurance network position, as measured by network centrality, interacts with an individual insurer's loss experience and performance in a non-linear manner.

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Dr. Hua Chen is an Associate Professor and Millard E. Gladfelter Research Fellow in the Department of Risk, Insurance, and Healthcare Management in the Fox School of Business at Temple University. He received his Ph.D. degree in Risk Management and Insurance from Georgia State University. He also holds a Bachelor's degree in Computational Mathematics and a Master's degree in Applied Economics. His research interests focus on longevity risk, systemic risk in the insurance industry, corporate risk management, and insurance economics. Dr. Chen's publications have appeared on top tier journals in insurance and actuarial science, including the *Journal of Risk and Insurance*, *Insurance: Mathematics and Economics*, *North American Actuarial Journal*, among others.

Date: 16 December 2015 (Wednesday)

Time: 14:30 – 16:00

Venue: SEK206, Simon and Eleanor Kwok Building

Language: English

For enquiries, please contact 2616-8373 or email to hkibs@Ln.edu.hk

*** All are Welcome ***