Accepted Manuscript

The network structure and systemic risk in the global non-life insurance market

Masayasu Kanno

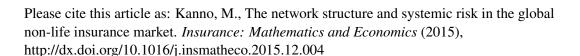
PII: S0167-6687(15)30178-5

DOI: http://dx.doi.org/10.1016/j.insmatheco.2015.12.004

Reference: INSUMA 2164

To appear in: Insurance: Mathematics and Economics

Received date: August 2015 Revised date: October 2015 Accepted date: 13 December 2015



This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

The Network Structure and Systemic Risk in the Global Non-life Insurance Market

Masayasu Kanno^{a,*}

^aKanagawa University, Japan

Abstract

This paper contributes to the literature on systemic risk by assessing the systemic importance of insurers in the global non-life insurance market. First, we estimate the bilateral reinsurance claims matrix using the aggregate outstanding reinsurance data from ISIS and theoretically analyze the interconnectedness in the global reinsurance network using network indicators. The robustness of the estimated matrix is fully assured by sensitivity analysis. Second, we theoretically analyze the contagious defaults introducing the Eisenberg-Noe framework. Reinsurers play a dominant role in the reinsurance network and most of them are included in our data sample. The network analysis finds that some reinsurers with large centrality measures are central in the hierarchical structure of the network. The default analysis shows the occurrences of many stand-alone defaults and only one contagious default via the global reinsurance network after the global financial crisis. In addition, one stress test based on a hypothetical severe stress scenario predicts a few occurrences of contagious defaults in the future. It follows from these analyses that systemic risk via the global reinsurance network is relatively restricted in the global non-life insurance market. In conclusion, our methodology would help supervisory authorities develop an assessment approach for interconnectedness in the global reinsurance network and aid the implementation of insurer stress tests for default contagion.

Keywords: systemic risk; interconnectedness; contagious default; network indicator; G-SIIs

^{*}Corresponding author. Kanagawa University, 2946, Tsuchiya, Hiratsuka, Kanagawa, Japan 259-1293, E-mail address: mkanno@kanagawa-u.ac.jp (M.Kanno).

Download English Version:

https://daneshyari.com/en/article/5076454

Download Persian Version:

https://daneshyari.com/article/5076454

<u>Daneshyari.com</u>