Default Contagion and Systemic Risk in the Presence of Credit Default Swaps *

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(First version: February 1, 2017)

(Current version: January 31, 2018)

* The authors are grateful for financial support from the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) Grant in Aid for Scientific Research (B) #15H02965 as well as from the Joint Usage and Research Center, Institute of Economic Research, Kyoto University. The first author appreciates financial support from MEXT Grant in Aid for Scientific Research (A) #25245046, (C) #17K03797 and from the Ishii Memorial Securities Research Promotion Foundation. The second author appreciates financial support from the Zengin Foundation for Studies on Economics and Finance. The third author appreciates financial support from The Japan Securities Scholarship Foundation. The second and third authors appreciate financial support from Japan Society for the Promotion of Science Bilateral Joint Research Projects/Seminars FY2015. In addition, all authors thank Tom Fischer, Yuri Kabanov, and Yoshiaki Ogura for helpful discussions. The latest version of the paper is available at `https://ssrn.com/abstract=2853258`.

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Abstract

We consider a clearing system of an interbank market in the case in which cross-trading of credit default swaps among banks is present, and we investigate the effect of credit default swaps on market stability. The existence and uniqueness of a clearing payment vector is proved under the assumption of the *fictitious default algorithm with financial covenants*, which reflects technical defaults often observed in actual financial markets. Some numerical results are presented to show that, in contrast to the previous literature, a complete network does not necessarily imply the most stable market when credit default swaps are introduced.

Keywords: Credit default swap, default cost, cross-trading, clearing payment, default contagion, systemic risk.

JEL classification: G13, G32, G33, L14.