

# Accepted Manuscript

Title: Measuring Systemic Risk Across Financial Market Infrastructures

Author: Fuchun Li Hector Perez-Saiz

PII: S1572-3089(17)30583-1  
DOI: <https://doi.org/doi:10.1016/j.jfs.2017.08.003>  
Reference: JFS 567

To appear in: *Journal of Financial Stability*

Received date: 21-7-2016  
Revised date: 15-8-2017  
Accepted date: 18-8-2017

Please cite this article as: Fuchun Li, Hector Perez-Saiz, Measuring Systemic Risk Across Financial Market Infrastructures, <![CDATA[*Journal of Financial Stability*]]> (2017), <https://doi.org/10.1016/j.jfs.2017.08.003>

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.



# Measuring Systemic Risk Across Financial Market Infrastructures \*

Fuchun Li <sup>a</sup>      Hector Perez-Saiz <sup>b</sup>

<sup>a</sup> Bank of Canada, 234 Wellington Street West, Ottawa, ON K1A 0G9

<sup>b</sup> International Monetary Fund, 700 19th St NW, Washington, DC 20431.

August 15, 2017

## Abstract

We measure systemic risk in the network of financial market infrastructures (FMIs) as the probability that two or more FMIs have a large credit risk exposure to a common FMI participant. We construct indicators of credit risk exposures in three main Canadian FMIs and use multivariate extreme value methods to estimate this probability. We find large differences in the levels of systemic risk across participants. Conditional on the participant being distressed, we re-estimate these probabilities and find that some participants create large exposures to FMIs, resulting in a larger level of systemic risk than the rest of the participants. Our results suggest that an appropriate oversight of FMIs may benefit from an in-depth system-wide analysis, which may have useful implications for the macroprudential regulation of the financial system.

*JEL classification:* G21, G23, C58

*Keywords:* Credit risk exposure, systemic risk, financial stability, financial market infrastructure, extreme value theory, clearing, settlement.

---

\*We are grateful to an anonymous referee, Jason Allen, Carol Brigham, Francesca Carapella, James Chapman, Peter Christoffersen, Jorge Cruz, Paul Glasserman, Joseph Haubrich, Kari Kemppainen, Wade McMahon, Paul Miller, Miguel Molico, Alexandre Ruest, Varya Taylor, Maarten van Oordt and Gabriel Xerri for comments. We also thank seminar participants at the Bank of Canada, the Bank of Finland, the Bundesbank Conference on Payments and Settlement, the Cleveland Fed/OFR Financial Stability Conference and Payments Canada. We thank Omar Abdelrahman, Siddharth Untawala and Blair Williams for excellent research assistance. The opinions and conclusions expressed herein are those of the authors and do not necessarily represent the views of the Bank of Canada and the International Monetary Fund. Corresponding author: either Fuchun Li or Hector Perez-Saiz. Email addresses: fuchunli@bank-banque-canada.ca (F.Li), hperez-saiz@imf.org (H.Perez-Saiz).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات