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Research Interests

Financial stability, Systemic risk, Network analysis, Behavioral economics

Experiences

- 2013- Research fellow
GREThA, CNRS (National Centre for Scientific Research)-University of Bordeaux
- 2012 Research assistant (4 months)
Ranking algorithms by eigenvector centralities
OST, Paris (Observatoire des Sciences et Techniques)-GREThA, CNRS

Education

- 2018 Ph.D in Economics
Thesis: Financial Fragility by Network Analysis and Behavioral Approach
GREThA, CNRS-University of Bordeaux
- 2013 M.Sc. in Risk engineering for Economics & Finance, summa cum laude
University of Bordeaux
- 2011 B.A. in Economics, Provost honors
University Of California-San Diego
- 2010 B.A. in Economics, summa cum laude
University of Bordeaux

Research Papers

- Shock diffusion in large regular networks: the role of transitive cycles (with *Noemí Navarro*, under review)
- Bank runs, fast and slow: from behaviors to dynamics (under review)
- A dynamic model of bank runs (with *Emmanuelle Augeraud-Véron*, working paper)
- Systemic banking panic (work-in-progress)
- Herd behavior & vaccination (with *Emmanuelle Augeraud-Véron*, work-in-progress)

Skills

Computation Matlab, Mathematica, R, NetLogo, Stata, VBA

Languages English (fluent), French (fluent), Vietnamese (native), Chinese (beginner)

Grants

- 2013 Research fellowship: Ministry of Higher Education and Research - University of Bordeaux, first prize
- 2010 One-year full scholarship: Education Abroad Program, University of California-San Diego

Teaching experiences

- Undergrad Microeconomics, Macroeconomics, Programming (VBA & SQL)
- Graduate Computational modeling

Conferences & Presentations

- 2019 OFCE - Science Po, Paris • Bank of Canada • London School of Economics
- 2018 7th Workshop on Networks in Economics and Finance (NETEF) - IMT Lucca • International Workshop on Financial System Architecture & Stability (IWFSAS) - Cass Business School, London • Workshop on Complexity and Emergence - Como School of Advanced Studies • 23rd Workshop on Economic Science with Heterogeneous Interacting Agents (WEHIA) - ICU, Tokyo • Research in Behavioral Finance Conference (RFBC) - VU Amsterdam
- 2017 23rd Conference on Computing in Economics and Finance (CEF) - New York • 2nd Workshop on Quantitative Finance, Risk, and Decision Theory - Bordeaux
- 2016 Belgian Financial Research Forum - National Bank of Belgium • 22nd Conference on Computing in Economics and Finance (CEF) - Bordeaux • 33rd Annual meeting of the European Research Group on Money, Banking and Finance - CERDI • 1st Workshop on Quantitative Finance, Risk, and Decision Theory - Bordeaux.
- 2015 GREThA Seminar - University of Bordeaux
- 2014 Workshop in Networks in Economics and Finance - CORE

References

Professor Emmanuelle Gabillon

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Professor Francesco Lissoni

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Professor Antoine Bouët

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Bank run, fast and slow: from behaviors to dynamics

This paper studies the development of bank runs. Existing models mainly consider bank runs as mis-coordination that occurs instantly in simultaneous games. In this paper, bank runs arise as dynamic cascades of withdrawals, through strategic complementarity and herding. Depositors make decisions based on (i) their types, (ii) their signals on total withdrawal and (iii) the observed actions of others. Within a network, depositors can monitor the actions of their direct neighbors. Using both analytical and numerical methods, the paper provides two novel contributions. First, the model is able to characterize the frequency, speed and abruptness of bank runs. Particularly, there are two distinct patterns of dynamics: sequential withdrawals build up progressively, or massive withdrawals suddenly occur “out of nowhere”. Second, regarding the behavioral aspect, increase herding generates a tension between activation and speed of runs, bank runs are more frequent but also slower to build up. By contrast, increase heterogeneity facilitates both activation and speed of runs.