Gerardo Ferrara

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Professional Activities

Senior Research Economist, Capital Markets Division, Bank of England, London, 2020-Present

Associate Editor, Bank Underground, Bank of England, London, 2019-Present

Research Economist, Capital Markets Division, Bank of England, London, 2018-2020

Research Economist (secondment), International Directorate, Bank of England, London, 2018

Research Economist (secondment), Research Hub, Bank of England, London, 2017-2018

Research Economist, Financial Market Infrastructure Directorate, Bank of England, London, 2014-2018

PhD Intern, Macro-Financial Risks Division, Bank of England, London, 2014

Fixed Term Contractor, Old Mutual, Financial Crime Prevention Group, London, 2014

Quantitative Analyst, Sella Servizi Bancari, Milan, 2009-2010

Fields of Expertise

Macroprudential and microprudential policies and their interactions, international macroeconomics, market infrastructures, market microstructure, international financial integration, political economy and systemic risk

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Education

PhD in Economics, Curriculum in Statistics and Applied Mathematics, Vilfredo Pareto Doctorate in Economics, University of Turin and Collegio Carlo Alberto, 2014

Special Student, Humanities and Social Sciences, California Institute of Technology, 2011

MSc, Finance, Coripe Piemonte, 2009

MSc, Finance and Banking, *Summa Cum Laude*, University of Rome Tor Vergata, 2007

BA, Economics and Finance, *Summa Cum Laude*, University of Palermo, 2005

Academic Activities

Referee work

American Economic Review: Insights, Journal of Economic Dynamics and Control, Journal of Financial Market Infrastructures, Journal of Banking & Finance, and University of Leuven research fund assignation process (granted through the Research and Industrial Research Council)

Teaching Experience

Lecturer, Network Analysis, Master in Complexity, Collegio Carlo Alberto, 2014

Lecturer, Statistical and Programming Tools for Economics Applications, PhD in Economics & Master in Complexity, Collegio Carlo Alberto, 2013

Faculty member in the Economics and Complexity Master program, University of Turin, 2013

Teaching Assistant, Macroeconomics, PhD & Master in Economics, Collegio Carlo Alberto, 2013

Lecturer, Mathematics for Economics, PhD in Economics, Collegio Carlo Alberto, 2012

Research Experience

Research Assistant, "Wealth at retirement and savings adequacy project", Center for Research on Pension and Welfare Policies (CeRP) and European Commission, 2013-2014

Research Assistant, Prof. Giovanna Nicodano, University of Turin, 2013-2014

Co-organizer of the 6^{th} Italian Doctoral Workshop in Applied Economics, University of Turin, 2013

Visiting Student Researcher, Prof. Marciano Siniscalchi, Northwestern University, 2011-2012

Visiting Student Researcher, Prof. Peter Bossaerts, California Institute of Technology, 2011

Research Assistant, University of Rome Tor Vergata and CASPUR, 2007

Papers

Publications

"Simulating liquidity stress in the derivatives market", with Marco Bardoscia, Nick Vause and Michael Yoganayagam, *Journal of Economic Dynamics and Control*, 2021

"Counterparty choice in the UK credit default swap market: An empirical matching approach", with Jun Sung Kim, Bonsoo Koo and Zijun Liu, *Economic Modelling*, 2020

"Central counterparty's auction design", with Xin Li and Daniel Marszalec, *Journal of Financial Market Infrastructures*, 2020

"Multiplex network analysis of the UK OTC derivatives market", with Marco Bardoscia and Ginestra Bianconi, *International Journal of Finance & Economics*, 2019

"Systemic illiquidity in the interbank network", with Sam Langfield, Zijun Liu and Tomohiro Ota, *Quantitative Finance*, 2019

"The impact of de-tiering in CHAPS", with Evangelos Benos and Pedro Gurrola-Perez, *Journal of Financial Market Infrastructures*, 2018

"The small bank failures of the early 1990s: Lessons for today from a story of boom and bust", with Kushal Balluck, Artus Galiay and Glenn Hoggarth, *Bank of England Quarterly Bulletin*, 2016

Working Papers

"Central bank swap lines: micro-level evidence", with Philippe Mueller, Ganesh Viswanath-Natraj and Junxuan Wang, *Bank of England Working Paper Series*, 2022

"Margin procyclicality and the collateral cycle", with Evangelos Benos and Angelo Ranaldo, *Bank of England Working Paper Series*, 2022

"Non-Standard Errors", with 342 co-authors from 34 countries and 207 institutions, *Working Paper*, 2021

"The COVID-19 Auction Premium", with Maria Flora and Roberto Renò, *Working Paper*, 2021

"Modelling fire sale contagion across banks and non-banks", with Fabio Caccioli and Amanah Ramadiah, *Bank of England Working Paper Series*, 2020

"Full payment algorithm", with Marco Bardoscia, Nick Vause and Michael Yoganayagam, *Working Paper*, 2019

"Bank capital regulation and derivatives clearing", with Francesc Rodriguez-Tous and Jonathan Smith, *Bank of England Working Paper Series*, 2018

Work in Progress

"Portfolio optimization under model uncertainty", *Job Market Paper*, 2013

Other Publications

"Margin calls! Cash shortfalls?", with Marco Bardoscia, Nick Vause and Michael Yoganayagam, *Bank Underground*, 2020

"Macroprudential liquidity requirements", with Iñaki Aldasoro, Sam Langfield, Zijun Liu and Tomohiro Ota, *VOX CEPR Policy Portal*, 2019

"Does the reliance of principal trading firms on banks pose a risk to UK financial stability?", with Jack Worlidge and Magda Rutkowska, *Bank Overground*, 2019

"CCP porting, are there lessons to be learnt from elsewhere?", with Fernando Cerezetti, *Bank Underground*, 2019

"New banking regulation: is it affecting the clearing of derivatives?", with Jonathan Smith, *Bank Underground*, 2019

"Financial Stability Report and Record (July) - Developments in fast markets", 2019

"Analysis of central clearing interdependencies (2018)", jointly with BIS, FSB, IOSCO, 2018

"FSB consults on the effects of reforms on infrastructure finance", FSB, 2018

"Analysis of central clearing interdependencies (2017)", jointly with BIS, FSB, IOSCO, 2017

"Bank liquidity requirements: How to get more bang for your buck", with Iñaki Aldasoro, Ester Faia, Sam Langfield, Zijun Liu and Tomohiro Ota, *Bank Underground*, 2016

"International economics and finance, Lehman Brothers, Bernard Madoff, Freddie Mac, subprime mortgage, financial derivatives, sovereign funds and Euro", *Grande Encyclopaedia GEDEA and Encyclopaedia Nova UTET, Novara, De Agostini*, 2011

Panel Discussions, Conferences, and Seminars

2022 Inaugural conference on the international roles of the U.S. dollar, jointly organized by the Federal Reserve Board and the Federal Reserve Bank of New York, Washington DC

2021 Financial Engineering Workshop, Cass Business School, London; Financial Computing and Analytics Group Seminar, University College London, London; European Financial Management Association 2021 Annual Meeting, Leeds; OTC Derivatives Regulators' Forum, Federal Reserve Bank of Chicago, Chicago; INFORMS 2021 Annual Meeting, Anaheim; IV Conference on Financial Stability, Bank of Mexico, Mexico City; International Finance and Banking Society 2021 Oxford Conference, Oxford; 24th Central Bank Macroeconomic Modelling Workshop, Central Bank of Chile, Santiago

2020 Seminar, ICE Clear Europe, London; Financial Policy Committee teach-in, Bank of England, London; Analytical Tools for Financial Supervision and Risk Management, Centre for Central Banking Studies, Bank of England, London; Regulation and supervision of liquidity and funding risk in the banking sector, Centre for Central Banking Studies, Bank of England, London

2019 OTC Derivative Regulatory Forum, Federal Reserve Bank of Chicago, Chicago; LSE Systemic Risk Centre Seminar, London School of Economics, London; Cambridge Finance Seminar, University of Cambridge, Cambridge; Workshop on Systemic Risk, Banking and Insurance, and the Role of their Shadow Entities, Cass Business School, London; Conference on Impact of regulation in a changing world: innovations and new risks, Bank for International Settlements, Basel; 5^{th} Symposium on Quantitative Finance and Risk Analysis, Kos; Analytical Tools for Financial Supervision and Risk Management, Centre for Central Banking Studies, Bank of England, London; Systemic risk assessment: identification and monitoring, Centre for Central Banking Studies, Bank of England, London; Managing Liquidity and Funding Risk, Centre for Central Banking Studies, Bank of England, London; Structure of Financial Markets, Centre for Central Banking Studies, Bank of England, London

2018 Paris Financial Management Conference, Paris; Conference on Economics of Payments IX, Bank for International Settlements, Basel; 4^{th} Symposium on Quantitative Finance and Risk Analysis, Mikonos; Analytical Tools for Financial Supervision and Risk Management, Centre for Central Banking Studies, Bank of England, London; Internal Seminar, Bank for International Settlements, Basel; Financial Mathematics Practitioners Seminar, University College London, London; Modelling in the Bank, Bank of England, London

2017 Systemic Risk in the Interbank Network, South African Reserve Bank, Pretoria; Systemic Risk Assessment: Identification and Monitoring, Centre for Central Banking Studies, Bank of England, London; Analytical Tools for Financial Supervision and Risk Management, Centre for Central Banking Studies, Bank of England, London

2016 Financial Stability Team Presentation, HM Treasury, London; Workshop on the Modelling and

Simulation of Payments and Other Financial System Infrastructures, Bank of Canada and the Canadian Payments Association, Ottawa; Structure of Financial Markets, Centre for Central Banking Studies, Bank of England, London; Showcase Event for Policy Makers, Bank of England, London

2015 9^{th} International Conference on Computational and Financial Econometrics, London; 1^{st} International Conference on Payments and Settlement, Bundesbank, Frankfurt; 13^{th} Simulator Seminar on Quantitative Analysis of the Payment and Securities Settlement Systems, Bank of Finland, Helsinki; Systemic Risk Assessment: Identification and Monitoring, Centre for Central Banking Studies, Bank of England, London; 2^{nd} International Conference of the Society for Economic Measurement, OECD, Paris; Lunch Seminar, Department of Computer Science, University College London, London

2014 Internal PhD Seminar, Financial Stability, Strategy and Risk Division, Bank of England, 2014

2013 Monday Lunch Seminar, Collegio Carlo Alberto, Turin; Lyon Workshop in Economics, Ecole Doctorale & Vilfredo Pareto Doctorate, Lyon

2011 Copula with Fractal Support, Dept. of Mathematics, California Institute of Technology, Pasadena; Stochastic Control, Department of Mathematics, University of Turin, Turin

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Training

Advanced Spark with R and SparklyR, Mango Solutions, 2021

Intermediate Spark with R and SparklyR, Mango Solutions, 2021

Macroeconomic diagnostics (MDSx), IMF Institute for Capacity Development & edX, 2020

Panel data methods course with Jeffrey M. Wooldridge, UCL Economics Department, 2019

Spanish course, Instituto Cervantes, 2017-2019

ECB-Global model for the euro area, the US, the UK, Japan, China, oil-producing economies and the rest of the world, International Directorate, Bank of England, 2018

Bank capital management, Adeva & Hemsley Fraser, 2017

Microeconometrics summer school, Barcelona Graduate School of Economics, 2016

Summer academy on advanced stochastic methods to model risk, Ulm University, 2012

Advanced risk and portfolio management bootcamp, New York University, 2010

Advanced statistics and data mining summer school, Universidad Politécnica de Madrid, 2010

Honors, Awards, and Fellowships

Governors' Recognition Scheme - Annual Awards, 2021

Best paper on regulation, 27th finance forum, 2019

Junior Research Fellow, Netspar, Tilburg, 2013-2014

Doctoral Scholarship, University of Turin, 2010-2012

DAAD Scholarship funded by the German Foreign Office, University of Ulm, 2012

Master in Finance Scholarship, Coripe Piemonte, 2008-2009

Master of Science Scholarship, University of Rome Tor Vergata, 2005-2007

Additional Skills

Languages: Italian (native speaker), English (fluent), and Spanish (advanced level)

Software: Matlab, Bloomberg, MS Office, VBA, EViews, SPSS, Stata, R, and Python