

# JEAN-PIERRE A. ZIGRAND

May 19, 2014

## PERSONAL INFORMATION

- **Date of Birth:** 5.9.1968
- **Citizenship:** Luxembourgish
- **Civil Status:** Married, two sons

## PHONE, FAX, EMAIL

- **Office Address:**  
The London School of Economics  
Department of Finance, and Financial Markets Group  
Houghton Street  
London WC2A 2AE  
United Kingdom
- **Phone:** (W) 020 79556201
- **Fax:** (W) 020 78494647
- **Email:** j.p.zigrand@lse.ac.uk

## EDUCATION

- The University of Chicago, Ph.D. in Economics, June 1998
- The London School of Economics, European Doctoral Program in Mathematical Economics, 1993
- Université Catholique de Louvain, Licence et Maîtrise (B.A.&M.A.) in Economics, *Summa Cum Laude*, Ranked No.1, 1992
- Summer School in Incomplete Markets, The Hebrew University of Jerusalem, 1997
- Summer School in Economic Theory, La Sorbonne, 1993

## ACADEMIC POSITIONS

- Director, Systemic Risk Centre, London School of Economics, ESRC financed, jointly with Dr. Jon Danielsson, 2012-
- Associate Professor, London School of Economics, 1998-
- Programme Director, Financial Markets Group, 2013-
- Research Associate, Financial Markets Group, 1998-
- Visiting Scholar, CORE, Université Catholique de Louvain, Summer of 1997
- Class Teacher, The London School of Economics, 1992/93
- Research Associate, Commission of the European Communities, 1991/92

## REFEREEING AND OTHER PROFESSIONAL SERVICES

- Econometrica
- Journal of Finance
- Review of Economic Studies
- Review of Financial Studies
- Journal of Political Economy
- Mathematical Finance
- Journal of Mathematical Economics
- Journal of Economic Dynamics and Control
- Economic Journal
- British Actuarial Journal
- Journal of Banking and Finance
- Journal of Financial Stability
- Annals of Operations Research
- Quantitative Finance
- Journal of Financial Intermediation
- European Journal of Law and Economics
- On editorial board of *Luxembourg Economic Papers*.

## AWARDS AND GRANTS

- Awarded ESRC Research Centre on Systemic Risk, Co-Director with Jon Danielsson
- Secured small number of private donations to SRC
- Impact Case Study submitted for REF 2014 on “Smarter regulation of financial markets”
- ESRC Co-Investment Pilot on “New Finance - High-frequency Trading Risk Simulation”
- EPSRC Research Grant entitled “Price Dynamics under Aggregated Decision Making in Financial Markets with Uncertainty and External Constraints.” Two year grant July 2004-2006. Joint with Jon Danielsson, Amil Dasgupta and Hyun Shin. Laid the foundation for our endogenous risk models.
- ESRC ‘Research Proposal for the ESRC World Economy and Finance Programme,’ title “Stability of the Global Financial System: Regulation and Policy Response.”
- Involved in successful grant application from AXA to establish the AXA/FMG Research Fund
- Awarded Teaching Prize during Major Review, together with one additional recurrent increment.
- Consistently reach very high teaching marks and positive student feedback.
- Elected “Teacher of the Year” in 2000/2001 by MSc Finance and Economics students.
- Research Grant, Ministry of Education and Research, Luxembourg, 1997-1998
- University of Chicago Unendowed Fellowship of Two-Third Tuition, 1993-1994, extended to Full Tuition and Stipend, 1994-1997
- Fellow of the Rotary Foundation, 1994
- Commission for Educational Exchange Scholarship, Belgium, 1993-1995
- Postgraduate Grant, Ministry of Education and Research, Luxembourg, 1992-1997
- Erasmus Scholarship of the European Communities, 1992

## PUBLISHED PAPERS

- **“Walrasian Foundations for Equilibria in Segmented Markets,”** joint with Rohit Rahi, forthcoming *Mathematics and Financial Economics*
- **“Endogenous Extreme Events and the Dual Role of Prices,”** joint with Jón Danielsson and Hyun Song Shin, *Annual Reviews in Economics*, Volume 4 on the *Economics of Extreme Events*, 2012, pp. 111-129.
- **“Endogenous and Systemic Risk,”** joint with Jón Danielsson and Hyun Song Shin, chapter in NBER book *Quantifying Systemic Risk* (2013), edited by Joseph G. Haubrich and Andrew W. Lo (p. 73 - 94), University of Chicago Press
- **“Fundamental Liquidity,”** *Revue de Stabilité Financière de la Banque Centrale du Luxembourg*, 2011, 106-114.
- **“What do Network Theory and Endogenous Risk Theory have to say about the effects of CCPs on Systemic Stability?”**, *Banque de France Financial Stability Review* 14, 2010.
- **“Modelling Financial Turmoil through Endogenous Risk and Risk Appetite,”** *Revue de Stabilité Financière de la Banque Centrale du Luxembourg*, 2010.
- **“Strategic Financial Innovation in Segmented Markets,”** joint with Rohit Rahi, *Review of Financial Studies* 22(8), 2009, 2941-2971.
- **“Equilibrium Asset Pricing with Systemic Risk,”** joint with Jón Danielsson. Published *Economic Theory*, 35/2, May 2008.
- **“Regulating Hedge Funds,”** joint with Jón Danielsson. Published, *Banque de France Financial Stability Review– Special Issue on Hedge Funds*, No. 10, April 2007.
- **“On Time-Scaling of Risk and the Square-Root-of-Time Rule,”** joint with Jón Danielsson. Published *Journal of Banking and Finance*, 30, 2006, 2701-2713.
- **“Endogenous Market Integration, Manipulation and Limits to Arbitrage.”** Published, *Journal of Mathematical Economics*, 42, 2006, 301-314.
- **“Rational Asset Pricing Implications from Realistic Trading Frictions.”** Published, *Journal of Business*, 78-3, 2005, 871-892.
- **“Highwaymen or Heroes? Should Hedge Funds be Regulated? A Survey,”** joint with Jón Danielsson and Ashley Taylor. Published, *Journal of Financial Stability*, 1, 2005, 522-543.

- **“The Impact of Risk-Regulation on Price Dynamics,”** joint with Jón Danielsson and Hyun Shin. Published, *Journal of Banking and Finance*, 28, 2004, 1069–1087.
- **“A General Equilibrium Analysis of Strategic Arbitrage.”** Published, *Journal of Mathematical Economics*, 40, 2004, 923–952.
- **“Physics of Finance”** presented at the *Rencontres de Physique de la Vallée d’Aoste, Results and Perspectives in Particle Physics*, organized by the Istituto Nazionale di Fisica Nucleare, March 2000. Now published in *Frascati Physics Series*, 17 Issue, 2000.

## WORK IN PROGRESS

- **“Procyclical and Endogenous Risk,”** joint with Jon Danielsson and Hyun Shin. JFE revise and resubmit.
- **“Endogenous liquidity and contagion in a world with multiple trading venues,”** joint with Rohit Rahi. Submitted to Financial Markets.
- **“Market Resilience,”** joint with Jon Danielsson, Efstathios Panayi and Gareth Peters.
- **“Information Aggregation in a Competitive Economy,”** joint with Rohit Rahi.
- **“Feedback Effects and Changes in the Diversity of Trading Strategies,”** joint with Hyun Shin and Daniel Beunza
- **“Arbitrage Networks,”** joint with Rohit Rahi. To be resubmitted.
- **“Systems and Systemic Risk”**, SRC Special Paper 1, got offer to extend and convert to book form by Imperial College Press.
- **“Central Counterparties and Endogenous Risk,”** joint with Jon Danielsson and Hyun Shin.
- **“Consistent Measures of Risk,”** joint with Jon Danielsson et al.
- **“Common Knowledge, Coordination and Rational Limits to Arbitrage.”**
- **“Financial Innovation in Arbitrage Networks,”** joint with Rohit Rahi.
- **“Arbitrage Networks: The Three Exchange Case,”** joint with Rohit Rahi.

- **“On the Mechanics of Endogenous Risk,”** joint with Jón Danielsson.
- **“Elevators, Escalators and Flipping: Asset Pricing with Strategic Complementarities,”** joint with Jon Danielsson and Amil Dasgupta. Formed the basis of our EPSRC grant application.
- **“A Reexamination of the Effects of Derivatives on the Underlying Securities.”**
- **“Optimal Taxation in Economies with Incomplete Markets.”**

#### OTHER PUBLICATIONS

- **“The Regulatory Challenge of High-Frequency Markets”** (2013), joint with Oliver Linton, and Maureen O’Hara, in *High-Frequency Trading*, O’Hara, Maureen and Marcos Lopez de Prado and David Easley (editors), Risk Books.

## IMPACT and CONSULTING WORK FOR REGULATORS, SUPERVISORS AND PUBLIC BODIES

- Wrote a successful Impact Case Study for REF 2014.
- Active consultant to Sir Mark Walport, the UK Chief Scientist, including
  - We have been involved by Sir Mark Walport in the exploratory scoping of how a Turing Centre with the aim of providing world leading research in algorithm theory and applications can be funded and be successful. We also are exploring related avenues with the FS-KTN on one hand, and with Andy Haldane on the other one.
  - The workshop organised by Sir Mark Walport on 7 March 2014 was the exploratory scoping workshop for the GCSA's First Themed Annual Report: "Innovation - Managing Risk not Avoiding It." The SRC will probably play a key role in the writing of the chapter on Financial Risk.
  - Conference on Science, Big Data, Analytics & the City - Creating a New Alignment, 31 Oct 2013, convened by Sir Mark Walport and Haldane on how a coherent approach can be found to collect financial data in a consistent and mutually beneficial manner that can lead to pre-competitive collaboration, as happens in other sciences.
- Active within ESRC-FSKTN. I participated on August 2 at an ESRC-FSKTN organised event on Supporting Innovative Research through Access to Business Data exploring ways to explore the funding available to ESRC for the Datasafe project. I also participated in the ESRC-FSKTN organised workshop on "Financial Stability?" on 27th February 2014. The purpose of the workshop was to establish any research gaps in the ESRC offering.
- Lead Expert in the UK Treasury-BIS project on "The Future of Computer Trading," 2010-2012, together with Charles Goodhart, Oliver Linton, Dave Cliff, Philip Bond, Kevin Houston, and Andy Haldane, chaired by Dame Clara Furse and Sir John Beddington.
- Consulted regulators and supervisors on Mifid II. Invited to inform the European Commission by Mr. Bassi (September 2011, September 2012), and by Mr. Buena Ventura to inform ESMA (December 2011). Presented the findings to the European Parliament's ECON committee the day before the Mifid II vote (25 October 2012). Invited by Commissioner Barnier and JRC Director-General Dominique Ristori to present at the high-level roundtable on 'Scientific support to financial analysis: How can science contribute to financial stability?' (12 November 2012).

- Presented the findings of the Foresight report at the Senate Banking Committee and House Committee on Financial Services, Washington DC, March 2013.
- Jean-Pierre Zigrand participated and presented a paper on computer-based trading, together with Prof. Philip Bond, at the FSKTN organised conference in Oxford on 20-30 May 2013. The conference was called the "Future of Finance Conference."
- Testified to the UK Parliamentary Commission on Banking Standards, chaired by the Lord Bishop of Durham, Justin Welby (26 November 2012).
- Consultant to the Luxembourgish Central Bank.
- Consultant to HM Treasury on their Consultation "A new approach to financial regulation: judgement, focus and stability," November 2010.
- Invited to present at the "Macroprudential Conference" of the Bank of England, November 2010.
- Invited to attend the "Foresight Networked Governance Project" workshop on the Future of Finance, organised by the UK Government Office for Science, July 2010.
- Invited by the Governor of the Banque de France to present at the official launching of the "Banque de France Financial Stability Review," Paris, July 2010.
- Invited by Governor Mersch to present at the official launching of the "Revue de Stabilité Financière" of the Banque Centrale du Luxembourg, Luxembourg, 2010, 2011 and 2012.
- Invited by Governor Reinesch to present at the official launching of the "Revue de Stabilité Financière" of the Banque Centrale du Luxembourg, Luxembourg, 2013.
- Invited by Commissioner McCreevy to present at the Conference on "Derivatives in crisis: safeguarding financial stability," organised by the European Commission's DG Internal Markets and Services. Panel member with Gary Gensler and Mario Nava, September 2009.
- Invited by Jean-Pierre Landau, Deputy Governor of the Banque de France, to contribute to the Special Issue on Hedge Funds, Banque de France Financial Stability Review.
- Regular contributor to the CCBS at the Bank of England on regulatory topics.
- Occasional consultant to the FSA, and Dr. Thomas Huertas, Banking Sector Director, on questions of hedge fund regulation.



- Consultant to the Luxembourgish Ministry of Culture, Higher Education and Research, 1998-present.

## OTHER PUBLICATIONS AND INVITED PRESENTATIONS

- Vulgarisation articles online (e.g. VOX, Markit Magazine) and in newspaper articles (e.g. Financial Times, Wort, Paperjam).
- Member of the Panel on “Information Systems and the Financial Crisis: Is technology to blame?” at The 11th Social Study of ICT workshop at LSE, Monday 28 March 2011.
- Invited to present at “The 2nd Annual UECE - LISBON MEETINGS - GAME THEORY AND APPLICATIONS,” November 2010.
- Invited to give the keynote speech at the ALFI-NICSA organised “European Alternative Investment Funds Conference,” November 2010, Luxembourg.
- Invited by Lord John Eatwell, Dr Ana Babus and Dr Vanessa Smith to present at the Cambridge conference on “Interconnections in Financial Markets: Theoretical and Empirical Perspectives,” 26-27 March 2010, Cambridge Judge Business School.
- Invited by Joseph Haubrich, vice president at the Federal Reserve Bank of Cleveland, and Andy Lo, Professor at MIT, to present at the NBER Research Conference on “Quantifying System Risk,” November 6 2009, Boston, MA.
- Currently working with Antonio Mele on a textbook on the mathematical and probabilistic foundations of financial economics, based upon our lecture notes for the course “Quantitative Methods for Finance.” On hold.
- Invited by the LSE Finance Society and by the LSE Private Equity Society to chair their high profile annual conferences.
- Invited discussant of Pearson, Poteshman and White, “Does Option Trading Have a Pervasive Effect on Underlying Stock Prices?” Adam Smith Asset Pricing Conference, London Business School, March 2007.
- Invited Discussant of Nicolae Garleanu, “Portfolio Choice and Pricing in Illiquid Markets,” SIFR conference on Institutions, Liquidity, and Asset Prices, August 2006.
- Discussant of Christensen, Flor, Lando and Miltersen, “Dynamic Capital Structure with Callable Debt and Debt Renegotiation,” CEPR/CeRP/ ESF/ FEEM/Fondazione Courmayeur-CNPDS Conference on

“The Firm and Its Stakeholders: The Evolving Role of Corporate Finance,” 23/03/01 to 25/03/01.

- Discussant at the Joint FMG/CEP Conference on “The Current Basel Capital Adequacy Proposals,” Wednesday 16th May 2001.
- Discussant of Chau and Vayanos, “Positive Profits with Strongly Efficient Markets,” European Finance Association meetings, August 2001.
- Discussant of Chacko, Cohen and Coval, “Rational Exuberance: The Effects of Anticipation Utility,” FMG/LSE Conference on “Recent Developments in Securities Valuation and Risk Management,” May 30, 2002.
- Discussant of Chauveau and Nalpas, “A Theory of Disappointment Weighted Utility,” European Finance Association Meetings, August 2002.
- Discussant of Decamps and Lovo, “Market Informational Inefficiency, Risk Aversion and Quantity Grid,” European Finance Association Meetings, August 2003.
- Chaired session on “Evaluating Fund Manager Performance“ at 3rd FMG Workshop - Advances in Empirical Finance, Thursday 17 and Friday 18 May 2001.
- Invited to present at HEC Economics Workshop in Honour of Andreu Mas-Colell, November 2005.
- Invited to present at NSF/NBER Decentralization Conference in Spring 2006.

## BOOK REVIEWS etc

- Endorsement for William Ziemba and Raymond Vickson's book "Stochastic Optimization: Models in Finance," published by World Scientific, 2006.
- William C. Hunter, George G. Kaufman, and Michael Pomerleano, "Asset Price Bubbles. The Implications for Monetary, Regulatory, and International Policies," MIT Press, 2003, "The Economic Journal," Volume 114, 2004.
- Peter D. Spencer, "The Structure and Regulation of Financial Markets," Oxford University Press, 2000. Appeared in "The Economic Journal," Volume 112, February 2002.

## TEACHING

- **Financial Economics (FM436), 1998-2013.** Lectures and classes on continuous time finance in the MSc Finance and Economics program.
- **Financial Engineering (FM408), 2007 -** Course leader. MSc Finance elective.
- **Advanced Asset Pricing Theory (FM438), 2013 -** Course leader. MSc Finance and Economics elective.
- **Quantitative Methods for Finance (FM458), 2002-2008.** Lectures and classes on probability theory, stochastic integration and the theory of stochastic processes.
- **Derivatives (FM441), 2000-2008.** Course leader. MSc lectures on derivatives, in particular their pricing in continuous time.
- **Options, Futures & Other Financial Derivatives (AF360), 1998-present.** Summer School lectures and classes on derivatives in continuous time.
- **Topics in Financial Markets (FM502), 2000-2005.** Lectures and classes on recent models of systemic risk and of crashes (2000, 2001), on recent models of non-expected utility and its applications to financial economics (2002), and on the infinite dimensional mathematical foundations of the Fundamental Theorem of Asset Pricing (2003, 2004) in our PhD program.
- **Practical Derivatives, ELSE, 2007-present.**

- **ESRC Advanced Postgraduate Training Programme in Asset Pricing** at the Xfi Centre for Finance and Investment at University of Exeter. December 2004, December 2006, September 2010.
- **Quantitative Methods in Accounting and Finance (AC550), 2000-2001.** Introductory calculus and real analysis lectures to students in the MSc Accounting and Finance degree.
- **Principles of Finance (FM212), 1998-2001.** Class teacher for this second-year comprehensive introduction to financial markets and corporate finance. The lectures are taught by Professors John Board and David Webb.
- **Microeconomics, 1999-2000.** Basic microeconomics for new Arthur Andersen recruits as part of their compulsory training.
- **Macroeconomic Principles (EC210), 1992-1993.** Class teacher for Professors Chris Pissarides and Charlie Bean.

## ADMINISTRATION

- Co-Director, Systemic Risk Centre
- Programme director MSc Finance Part Time, 2010-present.
- Programme director MSc Finance and Economics, Lent 2009, Lent 2010, Lent 2011, Lent 2012.
- Undergraduate exam subboard chair for Accounting and Finance, 2005-2008.
- In charge of corporate liaisons for the Department 1998-2008 of Accounting and Finance. Set up a new forum, the “External Speaker Series.”
- Active in School wide Fund Raising, successful among others with the Hillary Till and John Phelan gifts to the School.
- Involved in FMG and Department research focused corporate fund and institutional fund raising (Lehman, IAM, ESRC and more).
- Organised the FMG Lunchtime Seminar Series, 2002-2005.
- Developed, with Jón Danielsson, the Department of Accounting and Finance’s placement web site.
- Undergraduate selector for the Accounting and Finance department, 1998-2004.

- Postgraduate selector for the MSc Finance and Economics and MSc Finance, 2004-present.
- Occasional PhD selector.
- Internal examiner for PhD students (Spyros Pagratis, Piotr Zurawski)
- Organised many workshops for FMG and the SRC.

## MISCELLANEOUS

- Consultant to private sector banks and private wealth management companies.
- Executive educator.
- Feature in Raymond Reuter's picture book "100 Letzebuerger Ron-derem d'Welt."