Bruno Biais HEC Paris biaisb@hec.fr

RESEARCH INTERESTS

Blockchain, Market Microstructure, Corporate Finance, Asset Pricing, Political Economy, Experiments, Contract Theory.

EDUCATION

- 1989: Doctorat HEC, Finance "Market Microstructure & Price Formation »
- 1987: Institut d'Etudes Politiques, Paris.
- 1986: DEA de Philosophie, Université Paris Sorbonne.
- 1985: Ecoles des Hautes Etudes Commerciales, Paris.

AWARDS, FELLOWSHIPS & GRANTS

- 2020: Senior ERC Grant for the project: "Welfare, Incentives, Dynamics and Equilibrium"
- 2017: Swiss Finance Institute Outstanding Paper Award for "The Blockchain Folk Theorem"
- 2017: Institut Louis Bachelier Award for the best paper on a hot topic for "Risk-taking or risk-sharing? Counterparty-risk, incentives and margins"
- 2016: Institute Louis Bachelier Award for the best paper on a hot topic for "Equilibrium Fast Trading"
- 2015: Elected President of the Society for Experimental Finance.
- 2014: Appointed Fellow of the Finance Theory Group.
- 2014: Awarded the "Financial Engineering and Banking Society Distinguished Scholar Award."
- 2014: Appointed member of the Autorité des Marchés Financiers scientific committee.
- 2012: Senior ERC Grant for the project: "Trading and Post-Trading"
- 2011: Elected Fellow of the Econometric Society.
- 2011: Appointed Economic Theory Fellow, by the Society for the Advancement of Economic Theory.

- 2002: Outstanding Referee Award, Review of Financial Studies
- 1999: Junior Fellow of the Institut Universitaire de France.
- 1998: New York Stock Exchange Award for the Best paper on Equity Trading.
- 1997: Elected research Fellow, CEPR
- 1994: CNRS Bronze Medal
- 1990: Paris Bourse Award for Best PHD Dissertation

PERMANENT POSITIONS

- 2018 : Professor of Finance, HEC Paris.
- 2018 : Associate researcher, Toulouse School of Economics/
- 2004 2018: Directeur de Recherche, CNRS, Toulouse School of Economics
- 1993-2004: Professeur, Université de Toulouse
- 1989--1993: Professeur Assistant, Groupe HEC.

VISITING POSITIONS

- September 2017 September 2018: Distinguished visiting professor, HEC Paris.
- October November 2012 : New York university Abu Dhabi (taught "Principles of Microeconomics" to undergraduates)
- November 2008: Cowles Foundation, Yale University
- Spring 2006: Duysenberg Fellow, European Central Bank
- 2004-2005: Visiting Research Economist, New York Stock Exchange
- Trinity term, 2003, Deutsche Bank Chair on European financial integration, Said Business School, Oxford University (taught "Financial markets and trading strategies" in MBA program)
- Summer term, 2000, 2001, Visiting professor, London Business School (taught "Financial markets and trading strategies" in MBA program)
- September--October 1994, March--April 1996: Visiting Associate Professor of Financial Economics, Carnegie Mellon University (taught "Corporate Finance" in MBA program and "Contract Theory" in PHD program)
- 1993: Visiting Assistant Professor of Financial Economics, Carnegie Mellon University (taught "Corporate Finance" in MBA program).

PUBLISHED PAPERS

2020

Biais, B., F. Heider, and M. Hoerova "Variation margins, fire-sales and informationconstrained optimality", forthcoming *The Review of Economic Studies*. (With FLORIAN HEIDER and MARIE HOEROVA.)

"Endogenous agency problems and the dynamics of rents", forthcoming *Review of Economic Studies* (With AUGUSTIN LANDIER.)

2019

"Blockchains, Coordination and Forks" *AEA papers and Proceedings*, 109: 1-6. (With CHRISTOPHE BISIERE, MATTHIEU BOUVARD and CATHERINE CASAMATA.)

"The Blockchain Folk Theorem" *Review of Financial Studies,* vol 32, Issue 5, May 2019, Pages 1662–1715. *Editor's Choice*. (With CHRISTOPHE BISIERE, MATTHIEU BOUVARD and CATHERINE CASAMATA.)

"The Microstructure of the Bond market in the Twentieth Century", vol 33, July 2019, Pages 250-271. *Review of Economic Dynamics*. (With RICK GREEN.)

2016

"Risk-taking or risk-sharing? Counterparty-risk, incentives and margins" *Journal of Finance*, Vol 17, pages 1669-1698. (With FLORIAN HEIDER and MARIE HOEROVA.)

2015

"Dynamics of innovation and risk" *Review of Financial Studies*, Vol 28, n 5, pages 1358-1380. (With JEAN-CHARLES ROCHET and PAUL WOOLLEY.)

"Equilibrium Fast-Trading" *Journal of Financial Economics*, Vol 116, n. 2, pages 292-313. (With THIERRY FOUCAULT and SOPHIE MOINAS.)

2014

"Equilibrium Pricing and Trading Volume under Preference Uncertainty" *Review of Economic Studies*, Vol 81, n 4, pages 1401-1437. (With PIERRE-OLIVIER WEILL AND JOHAN HOMBERT.)

"Equilibrium Discovery and Preopening Mechanisms in an Experimental Market" *Management Science* pages 753-769. (With CHRISTOPHE BISIÈRE and SÉBASTIEN POUGET.)

2013

"Competing mechanisms in a common value environment: A corrigendum", *Econometrica*, 81, 393-406. (With DAVID MARTIMORT & JEAN-CHARLES ROCHET.)

2012

"Clearing, counterparty risk and aggregate risk", *IMF Economic Review*. 60, 193-222. (With FLORIAN HEIDER & MARIE HOEROVA.)

2010

"Imperfect Competition in Financial Markets: ISLAND versus NASDAQ", *Management Science*. (With CHRISTOPHE BISIÈRE and CHESTER SPATT.)

"Large Risks, Limited Liability and Dynamic Moral Hazard", *Econometrica*. 78 (1), 73-118. (With THOMAS MARIOTTI, JEAN-CHARLES ROCHET and STÉPHANE VILLENEUVE.)

"Equilibrium Asset Pricing And Portfolio Choice Under Asymmetric Information", *The Review of Financial Studies*. 23(4), 1503-1543. (With PETER BOSSAERTS & CHESTER SPATT.)

2009

« Credit, Wages and Bankruptcy Laws », *Journal of the European Economic Association*, p 939-973. (With THOMAS MARIOTTI.)

"Political Predation and Economic Development", *Economics & Politics*, p. 255-277. (With JEAN-PAUL AZAM & ROBERT BATES.)

"Hindsight Bias, Risk Perception and Investment Performance", *Management Science*, p. 1018-1029. (With MARTIN WEBER.)

2008

"Entrepreneurs and New Ideas", *The RAND Journal of Economics*, p. 1105-1125. (With ENRICO PEROTTI.)

2007

"Dynamic Security Design: Convergence to Continuous Time and Asset Pricing Implications", *Review of Economic Studies*, p. 345-390. (With THOMAS MARIOTTI, GUILLAUME PLANTIN & JEAN-CHARLES ROCHET.)

2005

"Strategic Liquidity Supply and Security Design", *Review of Economic Studies*, p. 615-649. (With THOMAS MARIOTTI.)

"Market Microstructure: a Survey of Microfoundations, Empirical Results and Policy Implications", *Journal of Financial Markets*, p. 217-264. (With LARRY GLOSTEN & CHESTER SPATT.)

"Judgmental Overconfidence, Self-Monitoring and Trading Performance in an Experimental Financial Market", *Review of Economic Studies*, p. 287-312. (With DENIS HILTON, KARINE MAZURIER et SÉBASTIEN POUGET.)

"Risque opérationnel et régulation du capital dans l'industrie de la gestion de fonds d'investissement en Europe", *Revue d'économie financière*, p. 197-211. (With CATHERINE CASAMATTA et JEAN-CHARLES ROCHET.)

2004

"Privatization versus Regulation in Developing Economies: the Case of West African Banks", *Journal of African Economies*, p. 361-394. (With JEAN-PAUL AZAM & MAGUEYE DIA.)

"Price Discovery across the Rhine", Review of Finance. (With ISABELLE MARTINEZ.)

2002

"Machiavellian Underpricing", *American Economic Review,* p 240-258. (With ENRICO PEROTTI.)

"IPO auctions: English, Dutch, ... French and Internet", *Journal of Financial Intermediation,* p 9-36. (With ANNE MARIE FAUGERON-CROUZET.)

"Incentive compatible contracts for the sale of information" *Review of Financial Studies,* p 988-1003. (With LAURENT GERMAIN.)

"An optimal IPO mechanism", *Review of Economic Studies*, p 117-146. (With PETER BOSSAERTS & JEAN-CHARLES ROCHET.)

2001

"Informal and formal credit markets and credit rationing in Côte d'Ivoire", *Oxford Review of Economic Policy*, p 520-534. (With JEAN-PAUL AZAM, MAGUEYE DIA & CHRISTINE MAUREL.)

2000

"Competing mechanisms in a common value environment", *Econometrica*, p 799-837. (With DAVID MARTIMORT & JEAN-CHARLES ROCHET.)

"Darwinian Selection does not eliminate irrational traders", *European Economic Review*, p 469-490. (with RAPHAEL SHADUR)

1999

"Optimal leverage and aggregate investment", *Journal of Finance*, p 1291-1323. (with CATHERINE CASAMATTA)

"Learning and price discovery during the preopening period in the Paris Bourse", with Pierre Hillion and Chester Spatt, *Journal of Political Economy*, p 1218-1248.

« Short Sales Constraints, Liquidity and Price Discovery: an Empirical Analysis on the Paris Bourse », *European Financial Management*, p 395-409. (with CHRISTOPHE BISIÈRE & JEAN-PAUL DÉCAMPS)

1998

"Asset Prices and Trading Volume in a Beauty Contest," *Review of Economic Studies*, p 307-340. (with PETER BOSSAERTS)

"Floors, Dealer Markets and Limit Order Markets", *Journal of Financial Markets*, p 253-284. (with THIERRY FOUCAULT & FRANCOIS SALANIE)

1997

"Trade credit and credit rationing", *Review of Financial Studies*, p 903-939. (with CHRISTIAN GOLLIER)

1995

"An empirical analysis of the order book and order flow in the Paris Bourse," *Journal of Finance*, p 1655-1689. (with PIERRE HILLION et CHESTER SPATT)

``La structure financière des entreprises: une investigation empirique sur données françaises, " *Economie et Prevision*, p 15-28. (with PIERRE HILLION & JEAN FRANCOIS MALECOT)

1994

"Insider and liquidity trading in stock and options markets," *Review of Financial Studies*, p 743-780. (with PIERRE HILLION)

1993

"Price formation and equilibrium liquidity in fragmented and centralized markets", *Journal of Finance*, p 157-185.

Asymétrie d'information et marchés financiers," *L'Actualité Economique*. (with THIERRY FOUCAULT)

Formation des prix sur les marchés de contrepartie," Revue Economique, p 755-786.

CHAPTERS IN BOOKS

« Risk Sharing, Adverse Selection and Market Structure », in *Financial Mathematics*, ed.
W.J. Runggaldier, Lectures Notes on Mathematics, Springer Verlag, 1997. (with JEAN-CHARLES ROCHET)

"Dynamic Financial Contracting" in *Advances in Economics and Econometrics: Theory and Applications, Tenth World Congress of the Econometric Society*, edited by Daron Acemoglu, Manuel Arellano, and Eddie Dekel, Cambridge university Press, 2013. (with THOMAS MARIOTTI, JEAN-CHARLES ROCHET and STÉPHANE VILLENEUVE)

WORKING PAPERS

"Asset pricing and risk sharing in an experimental complete market" (with THOMAS MARIOTTI, SOPHIE MOINAS AND SEBASTIEN POUGET) "Incentive constrained risk sharing, endogenous segmentation and asset pricing" (with JOHAN HOMBERT AND PIERRE OLIVIER WEILL)

"Equilibrium Bitcoin Pricing" (with Christophe Bisiere, Matthieu Bouvard, Catherine Casamatta and Albert Menkveld)

"Committee-based blockchain protocole as a game between strategic nodes and adversaries" (with YACKOLLEY AMOUSSOU GUENOU, MARIA POTOP BUTUCARU, AND SARA TUCCI)

EDITORIAL RESPONSABILITIES

Currently: Department Editor for Finance, *Management Science*. Previously: Co-editor of *The Journal of Finance*, Editor of *The Review of Economic Studies*, Associate Editor of *The Journal of The European Economic Association*, *The European Economic Review*, *The Journal of Finance*, *The Review of Financial Studies* and *The Journal of Financial Markets*.

PHD SUPERVISION

PHD advisor of Thierry Foucault, Catherine Casamatta, Anne Marie Faugeron--Crouzet, Laurent Germain, Nour Meddahi, Sébastien Pouget, Gilles Récassens, Antoine Renucci, Magueye Dia, Sabrina Buti, Alexis Konian, Weihua Huang, Johan Hombert, Philipp Krueger, Matthieu Bouvard, Jieying Hong, Hugues Dastarac and Yackolley Amoussou Guénou.

MAIN COURSES TAUGHT

At the undergraduate level: Principles of Microeconomics

At the graduate Masters and PHD levels: Contract Theory, Market Microstructure, Corporate Finance, Asset Pricing

OTHER ACADEMIC AND SOCIETAL RESPONSABILITIES

I have been Program Director of the Financial Economics Program at the CEPR. I have also been Program Chair for the European Meeting of the Econometric Society in 2013.

I have been a scientific adviser for Euronext, the NYSE, the AMF, the European Central Bank and the Bank of England.

RECENT PRESENTATIONS AT CONFERENCES AND SEMINARS

21 Feb. 2018, Institute for New Economic Thinking conference, Columbia University, New York, "Variation margins, fire sales, and information-constrained optimality"

22 March 2018, Adam Smith Conference, London Business School, "Incentive constrained risk sharing, endogenous segmentation and asset pricing"

5 April 2018, Blockchain Seminar, INRIA, "The blockchain folk theorem"

26 April 2018, Philadelphia Fed, Conference on financial markets, "The microstructure of the bond market in the 20th century"

3 May 2018, Finance Seminar, Wharton School, University of Pennsylvania, "Variation margins, fire sales, and information-constrained optimality"

7 June 2018, Paul Woolley Conference, London School of Economics, "Incentive constrained risk sharing, endogenous segmentation and asset pricing"

13 June 2018, Bank of Finland, Conference on digital money, "The blockchain folk theorem"

25 June 2018, Finance Theory Group conference, London, "Variation margins, fire sales, and information-constrained optimality"

2 July 2018, Ecole Normale Supérieure, Paris, Blockchain conference, "The blockchain folk theorem"

28 Sept. 2018, Bank for International Settlements, Basel, "Equilibrium Bitcoin Pricing"

9 Nov. 2018, University of Chicago, Conference on Blockchain, "Equilibrium Bitcoin Pricing"

24 May 2019, Austrian National Bank Wien Universität Lecture, "Equilibrium Bitcoin Pricing"

27 June 2019, Finance Theory Group Summer School Lecture, Wharton University, "Incentives in finance"

30 August 2019, European Association for Research in Industrial Economics, "Variation margins, fire sales, and information-constrained optimality"

20 september 2019, Finance Seminar, University of Zurich, "Variation margins, fire sales, and information-constrained optimality"

6 November 2019, Economics Seminar, London Business School, "Asset pricing and risk sharing in an experimental market"

12 December 2019, Colloque de l'Institut des Actuaires, SCOR, « Economics of consensus »

25 february 2020, Central European University Seminar, "Equilibrium bitcoin pricing"

28 March 2020, Cambridge University, "Economics of consensus", Conference: "The economics of distributed ledger technology" (visio)

24 April 2020, University of British Columbia, "Economics of consensus" (visio)

27 May 2020, Finance Theory Seminar, "Economics of consensus" (visio)

4 Sept. 2020, Stockholm School of Economics Finance seminar, "Taxing Financial Transactions" (visio)

25 Sept. 2020, University of Colorado Finance Seminar, "Incentive constrained risk sharing, endogenous segmentation and asset pricing" (visio)

30 Sept. 2020, Carnegie Mellon University Finance Seminar, "Incentive constrained risk sharing, endogenous segmentation and asset pricing" (visio)

5 Oct. 2020, Carnegie Mellon University Distinguished Blockchain Seminar, "Economics of consensus" (visio)