



TSE-HEC-ACPR research initiative on Systemic Risks and Regulation – 2023

Academic partner(s): Toulouse School of Economics (TSE) and HEC Paris

Financial partner(s): ACPR

Scientific director(s): Sophie Moinas (TSE) and Christophe Pérignon (HEC Paris)

Website: <https://acpr.banque-france.fr/publications/etudes-et-recherche/chaire-acpr-regulation-et-risques-systemiques>

RESEARCH PROGRAM DESCRIPTION

The goal of the TSE-HEC ACPR research initiative is to create a highly visible research center focusing on state-of-the-art evaluation and understanding of systemic risks, the prudential regulation of the financial and banking system, and related challenges and opportunities. The topics covered by the research initiative include the **definition and estimation of risk measures** for systemic risk, cyber-risk, fraud risk, epidemiological risks, climate risk, and in the context of big data; the **design and impact of regulation** in the banking and insurance industries and for market infrastructures; and the **study of new challenges and opportunities in the financial system**, such as new technologies, entry of new players, and artificial intelligence.

The research initiative covers the topics below:

1. Drivers of systemic risk
2. Impact of new technologies on banks and insurance companies
3. Cyber-risk and its link with the systemic risk of financial institutions
4. Impact studies of regulation in banking and insurance
5. Central Counterparties (CCPs)
6. Risk management and risk modeling
7. Competition in the banking and insurance industries (concentration) and new actors
8. Insurance contract design
9. Epidemiological risks
10. Climate risk, sustainability, and green finance
11. Biases in Artificial Intelligence (AI) used by banks, fintech, and insurance companies

RESEARCH TEAM

Researchers

DAOUIA, Abdelaati (TSE)
HEGE, Ulrich (TSE)
MEDDAHI, Nour (TSE)
MOINAS, Sophie (TSE) **Scientific Coordinator**
BIAIS, Bruno (HEC)
COLLIARD, Jean-Edouard (HEC)
LANDIER, Augustin (HEC)
PERIGNON, Christophe (HEC) **Scientific Coordinator**
WANG, Aluna (HEC)

Other researchers involved in the research program and/or working on the topic of the ACPR research initiative

BIANCHI, Milo (TSE)
BISCEGLIA, Michele (PhD student, TSE)
BONNEFON, Jean-François (TSE)
BOUVARD, Matthieu (TSE)
CASAMATTA, Catherine (TSE)
EFING, Matthias (HEC)
FLECKENSTEIN, Quirin (HEC)
GOLLIER, Christian (TSE)
GOURIEROUX, Christian (TSE, ENSAI)
GUEMBEL, Alexander (TSE)
MAURIN Vincent (HEC)
POUGET, Sébastien (TSE)
ROCHET, Jean-Charles (TSE)
STUPFLER, Gilles (ENSAI)
TREICH, Nicolas (TSE)
VILLENEUVE, Stéphane (TSE)

Other associated researchers:

BENOIT, Sylvain (Dauphine)
BILLIO, Monica (Ca' Foscari University of Venice, Italy)
HURLIN, Christophe (University of Orléans)
JASIAK, Joann (York University)
KIM, Jihyun (TSE)
MENKVELD, Albert (Vrije Universiteit Amsterdam)
RENNE, Jean-Paul (University of Lausanne)
ROBERT, Christian (ISFA)
TANG, Huan (Wharton School)
VALLÉE, Boris (Harvard Business School)
VERDIER, Marianne (Université Paris-Panthéon-Assas)
YAMASHITA, Mamiko (Osaka University)
ZHAO, Junliu (Bayes Business School)

PhD Students

DUBOIS, Basile (TSE) (supervisor: A. Guembel)

SAURIN, Sébastien (University of Orléans) (supervisors: Christophe Hurlin and Christophe Pérignon) TORRES CORONA, Angela (2019-2023) (supervisors: S. Moinas and JH Keppler, Université Paris Dauphine): “The Efficiency of Short-Term Electricity Markets with Variable Renewables and their Impact on Forward Prices and Hedging Strategies”

BAO Li (2018-2023) (supervisor: S. Moinas) “Three essays in green finance”

MARTINEZ SOLIS, Keller (2021-) (supervisor: S. Moinas): 1 paper on green bonds, current paper on ESG and real investment decisions

LEBRUN, Claire (Liverpool University Management School, joint supervisors: A. Daouia, A. Taamouti). Project title: Big data analytics and causality in media outputs. Part of Claire’s project focuses on financial risk.

HACHEM, Joseph (Toulouse School of Economics, joint supervisors: A. Daouia, G. Stupfler). Project title: Joint analysis of extreme values in massive data. Applications are concerned with financial and actuarial risk handling.

LAURENT, Thibault (University of Toulouse Capitole, joint supervisors: A. Daouia, C. Thomas). Project title: Contributions to statistics and spatial econometrics with applications in social sciences. Part of Thibault’s project focuses on climate risk.

ABBAS, Yasser (University of Toulouse Capitole, joint supervisors: A. Daouia, A. Ruiz-Gazen). Project title: A new perspective on M-quantile regression: From L^1 to L^p optimization. Applications are concerned with tail risk measurement and inference.

BOZHIDAROVA, Malvina (University of Nottingham, joint supervisors: G. Stupfler, Reuben O'Dea, Frank Ball and Yves van Gennip). Project title: *Statistical analysis of risk, failure, and extreme event propagation in the airline industry using multi-level networks*. Part of Malvina’s project focuses on financial risk to airlines and private companies.

FANG, Lin (PhD TSE, supervisor: U. Hege), on cash policies of corporates and consequences for monetary policy

AMZALLAG, Adrien (M2 ETE master thesis, supervisor: U. Hege) on “local amenities, salience, and ESG/climate focus of investment managers”

MALITSKAIA, Yulia (PhD TSM supervisor: U. Hege), on factor models

PUBLICATIONS OF THE YEAR DIRECTLY RELATED TO THE RESEARCH PROGRAM

Abbas, Y., **Daouia, A.** (2024). Understanding world economy dynamics based on indicators and events, to appear in *Journal of Data Science, Statistics, and Visualisation*. (Topic: Epidemiological risks)

Bozhidarova, M., Ball, F., van Gennip, Y., O'Dea, R.D., **Stupfler, G.** (2024). Describing financial crisis propagation through epidemic modelling on multiplex networks, to appear in *Proceedings of the Royal Society A*. (Topic: Risk management and risk modeling)

Biais, B., Bisière, C., Bouvard, M., Casamatta, C., and Menkveld, A. (2023), “Equilibrium Bitcoin Pricing”, *The Journal of Finance*, vol. 78, n. 2, April 2023, pp. 967–1014. (Topic: Impact of new technologies on banks and insurance companies)

Daouia, A., Stupfler, G. (2024). Extremile Regression, to appear in *Wiley StatsRef: Statistics Reference Online*. (Topic: Risk management and risk modeling)

Daouia, A., Padoan, S., and **Stupfler, G.** (2024), “Optimal weighted pooling for inference about the tail index and extreme quantiles”, *Bernoulli*, vol. 30, n. 2, May 2024, pp. 1287–1312. (Topic: Risk management and risk modeling)

Daouia, A., Stupfler, G., and Usseglio-Carleve (2024), “Bias-reduced and variance-corrected asymptotic Gaussian inference about extreme expectiles”, *Statistics and Computing*, 2024, forthcoming. (Topic: Risk management and risk modeling)

Daouia, A., Stupfler, G., and Usseglio-Carleve (2023), “Extreme value modelling of SARS-CoV-2 community transmission using discrete Generalised Pareto distributions”, *Royal Society Open Science*, vol. 10, n. 3, March 2023. (Topic: Epidemiological risks)

Daouia, A., Stupfler, G., Usseglio-Carleve, A. (2024), “An expectile computation cookbook”, *Statistics and Computing* 34: 103. (Topic: Risk management and risk modeling)

Daouia, A., Stupfler, G., Usseglio-Carleve, A. (2023), “Inference for extremal regression with dependent heavy-tailed data”, *Annals of Statistics* 51(5): 2040-2066. (Topic: Risk management and risk modeling)

Djogbenou, **Gourieroux**, Jasiak, Bandehali (2023), “Composite Likelihood for Stochastic Migration Model with Unobserved Factor”, *Journal Financial Econometrics* (Topic: credit risk)

Gourieroux, C., and Jasiak J. (2023), “Time Varying Markov Process with Partially Observed Aggregate Data: An Application To Coronavirus”, *Journal of Econometrics*, vol. 232, n. 1, January 2023, pp. 35–51. (Topic: epidemiology)

Gourieroux, C., Jasiak (2023), “Dynamic Deconvolution of Independent AR(1) Sources”, *Journal of Time Series Analysis* (Topic: drivers of systemic risk, non-causal models)

Gourieroux, Monfort, Renne (2023), “Required Capital for Long Run Risk”, *Journal of Economic Dynamic and Control* (Topic: drivers of systemic risk , long run risks)

Gourieroux C. and Jasiak, J. (2023), “Generalized Covariance Estimators”, *Journal of Business and Economic Statistics* (Topic: drivers of systemic risk , non-causal models)

Gourieroux, Lu (2023), “Noncausal Affine Processes with Applications to Derivative Pricing, *Mathematical Finance*” (Topic: drivers of systemic risk , non-causal models)

Efing, M., Hau, H., Kampkötter, P., **and Rochet, J.C.** (2023), “Bank Bonus Pay as a Risk Sharing Contract”, *The Review of Financial Studies*, vol. 36, n. 1, 2023, pp. 235–280. (Topic: Insurance contract design)

Pérignon, C., O. Akmansoy, **C. Hurlin, A. Menkveld,** A. Dreber, F. Holzmeister, J. Huber, M. Johannesson, M. Kirchler, M. Razen, U. Weitzel (2024), *Computational Reproducibility in Finance: Evidence from 1,000 Tests* *Review of Financial Studies*, forthcoming. (Topic: Risk management and risk modeling)

Hu e, S., **C. Hurlin, Pérignon, C.,** and **S. Saurin** (2024) Measuring the driving forces of predictive performance: Application to credit scoring. *R&R Management Science* (Topic: Risk management and risk modeling)

Hurlin, C., Pérignon, C., and **S. Saurin** (2024) The fairness of credit scoring models. *Management Science*, forthcoming (Topic : Risk management and risk modeling)

Hurlin, C., Pérignon, C., and **S. Saurin** (2024) Fairness equivalence in credit scoring: A regulatory framework to treat algorithms like prescription drugs (Topics: Risk management and risk modeling)

Hurlin, C., and **Pérignon, C.** (2024) Machine Learning and IRB Capital Requirements: Advantages, Risks, and Recommendations (Topic: Risk management and risk modeling)

Biais, B. Committee-based blockchains as games between opportunistic players and adversaries, (2024) Y Amoussou-Guenou, B Biais, M Potop-Butucaru, S Tucci-Piergiovanni, *Review of Financial Studies* 37 (2), 409-443 (Topic: new technologies on banks and insurance companies)

Derrien, F., P. Krueger, **A. Landier,** and T. Yao (2024) ESG news, future cash flows and firm values. *Journal of Finance*, conditionally accepted. (Topic: Climate risk, sustainability, and green finance)

Landier A. and S. Lovo (2024) ESG Investing: How to optimize impact? *Review of Financial Studies*, forthcoming. (Topic: Climate risk, sustainability, and green finance)

Biais, B., A Capponi, LW Cong, V Gaur, K Giesecke (2023) Advances in blockchain and crypto economics, *Management Science* 69 (11), 6417-6426. (Topic: Impact of new technologies on banks and insurance companies)

Afrouzi, H., S. Kwon, **A. Landier,** Y. Ma, D. Thesmar (2023). Overreaction in Expectations: Evidence and Theory, *Quarterly Journal of Economics*, 138 (3), August, 1713-1764. (Topic: Drivers of systemic risk)

Other published papers on the topics of the research initiative

Bianchi, M., Bouvard, M., Gomes, R., Rhodes, A., and Shreeti, V. (2023), “Mobile payments and interoperability: Insights from the academic literature”, *Information Economics and Policy*, vol. 65, n. 101068, December 2023. (Topic: Competition in the banking and insurance industries (concentration) and new actors)

Blanchard, O., **C. Gollier** and **J. Tirole,** (2023), Fighting the war against climate change, *Annual Review of Economics* 15 (1), 689-722. (Topic: Climate risk and green finance)

Howard, P.H., M. Sarinsky, M. Bauer, C. Cecot, M. Crooper, M. Drupp, M. Freeman, K.T. Gillingham, **C. Gollier,** B. Groom, Q. Li, M. Livermore, R. Newell, W.A. Pizer, B. Prest, G. Rudebusch, T. Sterner, and G. Wagner,

(2023), U.S. benefit-cost analysis require revision, *Science* vol. 380, 6647, p. 803. (Topic: Climate risk and green finance)

Cherbonnier, F., and **Gollier, C.** (2023), Fixing our public discounting systems, *Annual Review of Financial Economics* 15, 147-164. (Topic: Climate risk and green finance)

Gollier, C., R. van der Ploeg and J. Zheng, (2024), The discounting premium puzzle: Survey evidence from professional economists, *Journal of Environmental Economics and Management* 122. (Topic: Climate risk and green finance)

Drupp, M.A., M.C. Hansel, E.P. Fenichel, M. Freeman, **C. Gollier**, B. Groom, G.M. Heal, P.H. Howard, A. Millner, F.C. Moore, F. Nesje, F. Quaas, S. Smulders, T. Sterner, C. Traeger, and F. Venmans, (2024), Accounting for the increasing benefits from scarce ecosystems, *Science* 383,1062-1064. (Topic: Climate risk and green finance)

Angeletos, G., **Collard, F.**, Dellas H., (2023), "Public Debt as Private Liquidity: Optimal Policy", *Journal of Political Economy*, vol. 131, n. 11, November 2023. (Topic: Drivers of systemic risk)

Armantier, O., Foncel, J., and **Treich, N.** (2023), "Insurance and portfolio decisions: Two sides of the same coin?", *Journal of Financial Economics*, vol. 148, n. 3, June 2023, pp. 201–219. (Topic: Insurance contract design)

Tirole, J. (2023), "Socially responsible agencies", *Competition Law and Policy Debate*, vol. 7, n. 4, April 2023, pp. 171–177. (Topic: Climate risk and green finance)

Villeneuve, S., and Martin, J., "Risk-sharing and optimal contracts with large exogenous risks", *Decisions in Economics and Finance*, vol. 46, February 2023, pp. 1–23. (Topic: Insurance contract design)

Bonnefon, J.F., Iyad Rahwan, I. and Shariff, A. (2024), "The Moral Psychology of Artificial Intelligence", *Annual Review of Psychology*, vol. 75, janvier 2024. (Topic: Biases and Discrimination in Artificial Intelligence (AI) tools used by banks and insurance companies)

Brinkmann, L., Baumann, F., Derex, M., **Bonnefon**, et al. (2023), "Machine Culture", *Nature Human Behaviour*, vol. 7, novembre 2023, p. 1855–1868. (Topic: Biases and Discrimination in Artificial Intelligence (AI) tools used by banks and insurance companies)

Zoe Purcell et **Bonnefon, J.F.** (2023), "Humans Feel Too Special for Machines to Score Their Morals", *PNAS Nexus*, vol. 2, n° 6, juin 2023. (Topic: Biases and Discrimination in Artificial Intelligence (AI) tools used by banks and insurance companies)

Makovi, K., Sargsyan, A., Li, W. **Bonnefon**, J.F., and Rahwan, T. (2023), "Trust within human-machine collectives depends on the perceived consensus about cooperative norms", *Nature Communications*, n° 3108, mai 2023. (Topic: Biases and Discrimination in Artificial Intelligence (AI) tools used by banks and insurance companies)

Purcell, Z., and **Bonnefon, J.F.** (2023), "Research on Artificial Intelligence is reshaping our definition of morality", *Psychological Inquiry*, vol. 34, n° 2, 2023, p. 100–101. (Topic: Biases and Discrimination in Artificial Intelligence (AI) tools used by banks and insurance companies)

Bonnefon; J.F. (2023), "Moral artificial intelligence and machine puritanism", *Behavioral and Brain Sciences*, vol. 46, n° e297, 2023. (Topic: Biases and Discrimination in Artificial Intelligence (AI) tools used by banks and insurance companies)

Efing, M., S. Goldbach and V. Nitsch. (2023) Freeze! Financial Sanctions and Bank Responses
Review of Financial Studies, 36, 2023, 4417-4459. (Topic: Regulation in banking and insurance)

Efing, M., H. Hau, P. Kampkötter, and J.-C. Rochet (2023) Bank Bonus Pay as a Risk Sharing Contract
Review of Financial Studies, 36, 2023, 235-280. (Topic: Regulation in banking and insurance)

Kuong, J. and **V. Maurin** (2023) The Design of a Central Counterparty, with John C.F. Kuong, Journal of Financial of Quantitative Analysis, forthcoming (Topic: Central Counterparties, CCPs)

König, P., **V. Maurin**, D. Pothier (2024) The Soft Carbon Budget Problem, Working Paper HEC Paris.
(Topic: Climate risk, sustainability, and green finance)

WORKING PAPERS

Gourieroux, Lu (2023): SIR Model with Stochastic Transmission »,RR, Journal Mathematical Biology (Topic: Epidemiology)

Gourieroux, Jasiak (2023): Long Run Risk in Stationary Vector Autoregressive Models, RR, Journal of Econometrics (Topic: Drivers of systemic risk, long run risks)

Gourieroux, Kim, Meddahi (2023): Stationnary Ultra Long Run Component, RR, Journal of Econometrics (Topic: Drivers of systemic risk , long run risks)

Gourieroux, Lu, Monfort (2023) : Risk Analysis of Random sets with Application To Basket Derivatives, Mars 2024 (Topic : Drivers of systemic risk, Dynamic of random sets)

Gourieroux, Jasiak (2024) ; Nonlinear Fore(Back)casting and Innovation Filtering for Causal Noncausal VAR Models, soumis à JBES (Topic: Drivers of systemic risk, non-causal models)

Gourieroux, Jasiak (2024) A Stochastic Tree with Application to Bubble Asset Modelling and Pricing, Soumis a JTSA (Topic: Drivers of systemic risk, non-causal models)

Gourieroux, Lu (2024) : Markov Determinantal Point Processes for Dynamic Random Sets, soumis a JTSA (Topic : Drivers of systemic risk, Dynamic of random sets)

Hege, U., Pouget, S. and Zhang, Y. (2023), "The Impact of Corporate Climate Action on Financial Markets: Evidence from Climate-Related Patents", TSE Working Paper, n. 23-1400, January 2023, revised April 2023.

Hege, U., and Zhang Y. (2022), "Activism Waves and the Market for Corporate Assets", TSE Working Paper, n. 22-1397, December 2022.

Hege, U., and **Guembel, A.**, "Product Targeting and Competition"

Hege, U., Li, K., and Zhang, Y., "Climate Innovation and Carbon Emissions: Evidence from Supply Chain Networks"

Moinas, S., Pouget, S., and Torres-Corona, A., "Intermittent power generation and risk premia on electricity futures markets ", August 2023

Rochet, J.C., and Biais, B., “Taxing Financial Transactions: A Mirrleesian Approach”, TSE Working Paper, n. 23-1413, February 2023.

Villeneuve, S., Biais, B., Gersbach, H., Rochet, J.C., von Thadden, E.L., “Dynamic Contracting with Many Agents”, TSE Working Paper, n. 24-1511, February 2024.

Hu , S., **C. Hurlin, P rignon, C., and S. Saurin** (2024) Measuring the driving forces of predictive performance: Application to credit scoring. R&R Management Science (Topic: Risk management and risk modeling)

Hurlin, C., P rignon, C., and S. Saurin (2024) Fairness equivalence in credit scoring: A regulatory framework to treat algorithms like prescription drugs (Topics: Risk management and risk modeling)

Hurlin, C. and P rignon, C. (2024) Machine Learning and IRB Capital Requirements: Advantages, Risks, and Recommendations (Topic: Risk management and risk modeling)

Biais, B., H Gersbach, JC Rochet, EL von Thadden, S Villeneuve (2024) Money and Taxes Implement Dynamic Optimal Mechanisms, Working Paper. (Topic: Regulation in banking and insurance)

Biais, B. and A. Landier (2024). Emission caps and investment in green technologies, Working Paper HEC Paris. (Topic: Climate risk, sustainability, and green finance)

Bonnefon, J.F., **A. Landier**, P. Sastry, and D. Thesmar (2024) Do Investors Care About Corporate Externalities? Experimental Evidence, Working Paper. (Topic: Climate risk, sustainability, and green finance)

Gipper, B., F. Sequeira, and **T. Wang** (2024). Astroturfing Financial Regulators: Evidence from Comment Letters to the SEC. Working Paper. (Topic: Regulation in banking and insurance)

Wang, A. and T. Wang (2024) The Proprietary Information of Token-Based Firm. (Topic: New technologies on banks and insurance companies)

Berger, A., J. Guo, and X. Li, and **A. Wang** (2024). Decomposing Bank Liquidity Creation: The Dynamics of Inputs and Outputs Across Economic and Financial Cycles. Working Paper HEC Paris. (Topic: Regulation in banking and insurance)

Colliard, J.-E. and C.-P. Georg (2023) Measuring Regulatory Complexity, R&R Journal of Financial Economics. (Topic: Regulation in banking and insurance)

Colliard, J.-E. and D. Gromb (2024) Financial Restructuring and Resolution of Banks. R&R at Review of Financial Studies. (Topic: Regulation in banking and insurance)

Colliard, J.-E., T. Foucault and S. Lovo (2023) Algorithmic Pricing and Liquidity in Securities Markets. Working Paper HEC Paris. (Topic: New technologies on banks and insurance companies)

Other working papers on the topics of the research initiative

Bontemps, C., Cherbonnier, F., and Magnac, T., “Reducing transaction taxes on housing in highly regulated economies”, TSE Working Paper, n. 23-1486, November 2023.

Feve, P., and Moura, A., “Frictionless house-price momentum”, TSE Working Paper, n. 23-1488, November 2023.

Kim, D., and **Pouget, S.**, “Do carbon emissions affect the cost of capital? Primary versus secondary corporate bond markets”, TSE Working Paper, n. 23-1472, September 2023.

Clayton, C., and Schaab, A., “Regulation with Externalities and Misallocation in General Equilibrium”, TSE Working Paper, n. 23-1445, June 2023.

Ambec, S., and Yang, Y., “Climate policy with electricity trade”, TSE Working Paper, n. 23-1422, March 2023, revised October 2023.

Ambec, S., Esposito, F., and Pacelli, A., “The economics of carbon leakage mitigation policies”, TSE Working Paper, n. 23-1408, January 2023, revised September 2023.

Brière, M., Huynh, K., Laudy, O., and **Pouget, S.**, “What do we Learn from a Machine Understanding: News Content? Stock Market Reaction to News”, TSE Working Paper, n. 23-1401, January 2023.

von Schenk, A., Klockmann, V., **Bonnefon, J.F.**, Rahwan, I., and Köbis, N., “Lie-detection algorithms attract few users but vastly increase accusation rates”, TSE Working Paper, n° 23-1448, juin 2023.

Gollier, C., (2024), Evaluating sustainability actions under uncertainty: The role of improbable extreme scenarios.

Cherbonnier, F., C. Gollier and A. Pommeret, (2023), Stress discounting.

Gollier, C., (2023), The welfare cost of ignoring the beta.

Gollier, C. and R.E. Kihlstrom, (2023), Recursive asset pricing with nonrecursive preferences.

Bouvard, M., Casamatta, C., "Bigtech vs bank"

Bianchi, M., Liu, Z., and Wang, G., “Who Becomes a Green Investor? Life-time Experiences and Responsible Investment”

Efing, M., P. Kampkötter and V. Maurin. (2024) Risk Managers in Banks. R&R at Review of Financial Studies, (Topic: Regulation in banking and insurance)

Fleckenstein Q. (2024) Intermediary Frictions and the Corporate Credit Cycle: Evidence From CLOs. Working Paper HEC Paris. (Topic: regulation in banking and insurance)

Fleckenstein Q., M. Gopal, G. Gutierrez, and S. Hillenbrand (2024) Nonbank Lending and Credit Cyclicity. R&R Review of Financial Studies. (Topic: regulation in banking and insurance)

Fleckenstein Q., K. Bickle, S. Hillenbrand, and A. Saunders (2024) The Myth of the Lead Arranger’s Share R&R Journal of Finance. (Topic: regulation in banking and insurance)

REPORTS, BOOKS, PRESS ARTICLES, etc.

Fabien Delaere, Sophie Moinas, and Sébastien Pouget, “Integrating health impacts in corporate decision-making tools: A case study on sugar in the Food and Beverage industry” (2023)

Catherine Casamatta, Uli Hege, Sophie Moinas, Sébastien Pouget, and Silvia Rossetto, “Corporate Tools for Climate Action: An Internal Carbon Price for Getlink?”, Case Study and Teaching note, 2023.

MAJOR COMMUNICATIONS RELATED TO THE RESEARCH PROGRAM

Events organized by the program

ACPR-HEC-TSE workshop, 5 avril 2023, ACPR (See Appendix 1)

3rd Sustainable Finance Conference, 7-8 Decembre, Toulouse (See Appendix 2)

Monthly seminars "Chaire ACPR" (See Appendix 3)

Master's courses

S. Moinas: Course Advanced Corporate Finance: climate risk and the quantification of climate-related financial exposures (15h, including a students' project on the quantification of climate risk exposures or of negative externalities on health)

A. Daouia & G. Stupfler: Course "Extreme Risk Analysis for Master 2 students in Economics of Global Risks (EGR) and Master 2 in Data Science for Social Sciences (D3S) at TSE (18h)

U. Hege: teaching and organization of "Understanding Global Risks" in the Master Economics of Global Risks (EGR), with a focus on climate-related and financial stability risks

U. Hege: supervision of two Empirical Projects in the Master M2 EGR 9Eith Louis Olive, Banque de France), on stock market performance of green versus brown stocks, the other on carbon emissions and distance-to-default

Others

S. Moinas, Member of Consultative Working Group of the European Securities and Markets Authority's (ESMA) Risk Standing Committee Financial Stability and Risk Working Group (RSC FRWG).

G. Stupfler Associate Editor for Biometrika since January 2023.

U. Hege: Member of the Scientific Council ESG of the Centre des Professions Financières (CFP), since June 2023

B. Biais, Member of the Advisory Scientific Committee of the European Systemic Risk Board, since 2022.

Appendix 1 : Workshop Chaire ACPR avec HEC et TSE

ACPR, 4 place de Budapest, 75009 Paris, Salle du Collège

5 avril 2023

9:30 – 10:00 Introduction – **Nathalie Aufauvre**, Secrétaire Générale de l'ACPR

Session 1 : Impacts des politiques et réglementations publiques (Bâle 3, Solvabilité 2) Introduction et coordination (à confirmer) : Emmanuel Rocher (ACPR)

- 10:00 – 10:30 Public Guaranteed Loans and Bank Risk-Taking
Théo Nicolas (ACPR), Stefano Ungaro (ACPR) et Eric Vansteenberghe (ACPR)
- 10:30 – 11:00 Basel 3 joint regulatory constraints: interactions and implications for the financing of the economy
Laurent Clerc (ACPR), Sandrine Lecarpentier (ACPR) et **Cyril Pouvelle** (ACPR)
- 11:00 – 11:30 Disclosure Regulation and Bank Liquidity Creation
Aluna Wang (HEC)

Session 2 : Modèles d'activité des institutions financières (notamment digitalisation) Introduction et coordination : Olivier Fliche (ACPR)

- 11:45 – 12:15 Competition among banks in the digital age
Michele Bisceglia (TSE)
- 12:15 – 12 :45 Augmenting Investment Decisions with Robo-Advice
Milo Bianchi (TSE)
- 12 :45 – 13:15 Réaction des individus à une IA détectant la sincérité des déclarations des individus
Jean-François Bonnefon (TSE)

Session 3 : Changement climatique et finance verte Introduction et coordination : Yann Marin (ACPR)

- 14:30 – 15:00 The Impact of Corporate Climate Action on Financial Markets: Evidence from Climate-Related Patents
Uli Hege (TSE)
- 15:00 – 15:30 Insurance supervision when climate is changing
Eric Vansteenberghe (ACPR)
- 15:30 – 16:00 ESG News, Future Cash Flows, and Firm Value
Tianhao Yao (HEC Paris)

Keynote speech

Introduction : Laurent Clerc (ACPR)

- 16:00 – 16:30 Money implements optimal dynamic contracts
Bruno Biais (HEC), Jean Charles Rochet (TSE) et Stéphane Villeneuve (TSE)

Appendix 2 : 3rd Sustainable Finance Conference

Toulouse, December 7 & 8, 2023

CONFERENCE VENUE

Toulouse School of Economics (TSE)
Auditorium 3 Jean-Jacques Laffont
1, Esplanade de l'Université
31080 Toulouse Cedex 06

CONFERENCE SECRETARIAT

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Thursday, December 7, 2023

08:30 – 09:00 **Registration & Welcome coffee ➤ Auditorium 3**

09:00 – 11:35 **SESSION 1: FINANCIAL STABILITY**

CHAIR: Fany DECLERCK (TSE)

Cyril MONNET (University of Bern & Gerzensee), Asgerdur PETURSDOTTIR (University of Bath) and **Mariana ROJAS-BREU** (Université Paris-Panthéon-Assas) “*Central Bank Account for All: Efficiency and Risk Taking*”

Marteen VAN OORDT (VU) and **Charles KAHN** (University of Illinois) “*The Demand for Programmable Payments*”

10:30 – 10:50 **Coffee break ➤ Cafeteria**

Tristan JOURDE (Banque de France) and Quentin MOREAU (Hong Kong University of Science and Technology) “*Systemic Climate Risk*”

11:35 – 11:45 **Short break**

11:45 – 12:45 **PANEL CLIMATE RISKS AND REGULATION**

MODERATOR: Sophie Moinas (TSE)

Marie-Laure FANDEUR, Head of P&C ESG • Alternative Solutions, SCOR

Jean-Philippe DESMARTIN, Head of Responsible Investment, Edmond de Rothschild Asset Management

Laurent CLERC, Director for Research and Risk Analysis, Autorité de Contrôle Prudentiel et de Résolution

Sébastien POUGET, Professor of Finance, TSE

12:45 – 14:00 **Lunch break ➤ Cafeteria**

14:00 – 17:30 **SESSION 2: RESPONSIBLE FINANCE AND LONG-TERM INVESTMENTS**

CHAIR: Catherine CASAMATTA (TSE)

Stefano GIGLIO (Yale University), Theresa KUCHLER (New York University), Johannes STROEBEL (New York University) and **Xuran ZENG** (New York University) “*Biodiversity Risk*”

Alexandre GAREL (Audencia Business School), **Arthur ROME**C (Toulouse Business School), Zacharias SAUTNER (University of Zurich) and Alexandre F. WAGNER (University of Zurich) “*Do Investors Care about Biodiversity?*”

15:30 – 16:00 **Coffee break ➤ Cafeteria**

Caroline FLAMMER (Columbia University), **Thomas GIROUX** (CREST (ENSAE),
Geoffrey M. HEAL (Columbia University)
"Biodiversity Finance"

Yurii HANDZIUK (HEC Paris) and **Stefano LOVO** (HEC Paris),

"Carbon Information, Pricing, and Bans. Evidence from a Field Experiment"

19:30

Dinner (*upon invitation*)

Friday, December 8, 2023

08:45 – 09:00 Welcome coffee ➤ *Cafeteria*

09:00 – 12:30

SESSION 3: FINANCIAL TECHNOLOGIES & DIGITAL MARKETS

CHAIR: Matthieu BOUVARD (TSE) ➤

Auditorium 3

Angelo RANALDO (University of St Gallen), **Ganesh VISWANATH-NATRAJ** (Warwick Business School) and Junxuan WANG (Cambridge Judge Business School)
"Blockchain Currency Markets"

Katya MALINOVA (Mc Master University) and **Andreas PARK** (University of Toronto) *"Learning from DeFi: Would Automated Market Makers Improve Equity Trading?"*

10:30 – 11:00

Coffee break ➤ *Cafeteria*

Christophe HURLIN (University of Orléans), **Christophe PERIGNON** (HEC Paris) and Sébastien SAURIN (University of Orléans)
"The Fairness of Credit Scoring Models"

Fiona GREIG (University of Chicago Booth School of Business), Tarun RAMADORAI (Imperial College London), Alberto G. ROSSI (Georgetown University Mc Donough School of Business) Steve UTKUS (Wharton Business School) and **Ansgar WALTHER** (Imperial College)

"Algorithm Aversion: Theory and Evidence from Robo-Advice"

12:30 – 13:30

Lunch break ➤ *Cafeteria*

13:30 – 14:30

PANEL AI IN FINANCE

MODERATOR: Milo BIANCHI (TSE)

Marie BRIERE, Head of Investor Intelligence and Academic Partnerships, Amundi Asset Management

Kheira BENHAMI, Chief Economist and Director of the Analysis, Financial Stability and Risk Division, Autorité des Marchés Financiers

Xavier VIVES, Professor of Economics and Finance, IESE Business School & TSE

14:30 – 14:40

Short break

14:40 – 16:30

SESSION 4: PRIVACY

CHAIR: Stéphane VILLENEUVE (TSE)

Bo BIAN (UBC Sauder School of Business), **Xinchen MA** (London School of Economics) and Huan TANG (University of Pennsylvania) *“The Supply and Demand for Data Privacy: Evidence from Mobile Apps”*

15:25 – 15:45

Coffee break ➤ **Cafeteria**

Bruno JULLIEN (TSE), Yassine LEFOUILI (TSE) and Michael H. RIORDAN (University of Columbia) *“Privacy Protection, Security, and Consumer Retention”*

16:30 – 16:45

CONCLUDING REMARKS

Appendix 3: Seminars ACPR

- Mercredi 12 Octobre 2022 de 10h30 à 12h00 Julien Sauvagnat (Université de Bocconi) “ Corporate Overconfidence and Bank Lending ”
- Mercredi 09 Novembre 2022 de 10h30 à 12h00 Simon Mayer (HEC Paris) “The Risk of Safe Asset Creation”
- Mercredi 07 Décembre 2022 de 10h00 à 11h30 Antoine Mandel (PSE-CES, Université Paris 1) “ A climate credit risk model: a structural approach ”, suivi d'un séminaire "brownbag" Cyril Pouvelle, chef de la Cellule de Recherche de l'ACPR, projet d'article sur la résilience des conglomérats financiers
- Mercredi 04 janvier 2023 de 15h à 16h30 Yiming Ma (Columbia business school) “Bank Debt, Mutual Fund Equity and Swing Pricing”
- Mercredi 1 février 2023 de 10h à 11h30 Peter Tankov (ENSAE) “Green investment and asset stranding under transition scenario uncertainty”
- Mercredi 1 mars 2023 de 10h30 à 12h Anna Creti (Université Paris-Dauphine) “Don’t Lead Me This Way: Central bank guidance at the age of climate change”
- Mardi 5 avril 2023 Workshop Lancement de la Chaire ACPR
- Mercredi 12 avril 2023 de 10h30 à 12h Gyöngyi Lóránth (Université de Vienne - Autriche) “ Financing and Resolving Banking Groups ”
- Mercredi 3 mai 2023 de 10h30 à 12h Philipp Krüger (Université de Genève) “ The Effect of Mandatory ESG Disclosure Around the World”
- Mardi 13 juin 2023 de 10h30 à 12h Thorsten Beck (European University Institute) “Incomplete Supervisory Cooperation” - Thématique: « Régulation et Risques Systémiques»
- Mercredi 6 septembre 2023, 10h30 – 12h Jérémy Pépy (Université de Lorraine) “Assessing the Impact of Basel III on European Bank Lending”
- Mercredi 04 octobre 2023 de 10h30 à 12h00 Yann BRAOUEZEC (IESEG School of Management) “International banking regulation and Tier 1 capital ratios. On the robustness of the critical average risk weight framework”
- Mercredi 8 novembre 2023 de 10h30 à 12h00 Jan Hannes Lang (Banque Centrale Européenne) “The state-dependent impact of changes in bank capital requirements”
- Mercredi 13 décembre 2023 de 10h30 à 12h00 Juan Imbet (Université Paris Dauphine) “Social Media as a Bank Run Catalyst“
- Mercredi 17 janvier 2024 de 10h30 à 12h00 Mariana Rojas-Breu (Université Paris II Panthéon-Assas) “Central-bank account for all : Efficiency and risk taking”
- Mercredi 7 février 2024 de 10h30 à 12h00 Iftekhar Hasan (Fordham University) “Climate-related Disclosure Commitment of the Lenders, Credit Rationing, and Borrower Environmental Performance”
- Mercredi 6 mars 2024 de 10h30 à 12h00 Olivier de Jonghe (Banque Nationale de Belgique et Université de Tilburg) “Bank Specialization and Corporate Innovation “
- Mercredi 3 avril 2024, 10h30 – 12h Enrico Sette (Banque d’Italie) “Interlocking directorates and competition in banking”