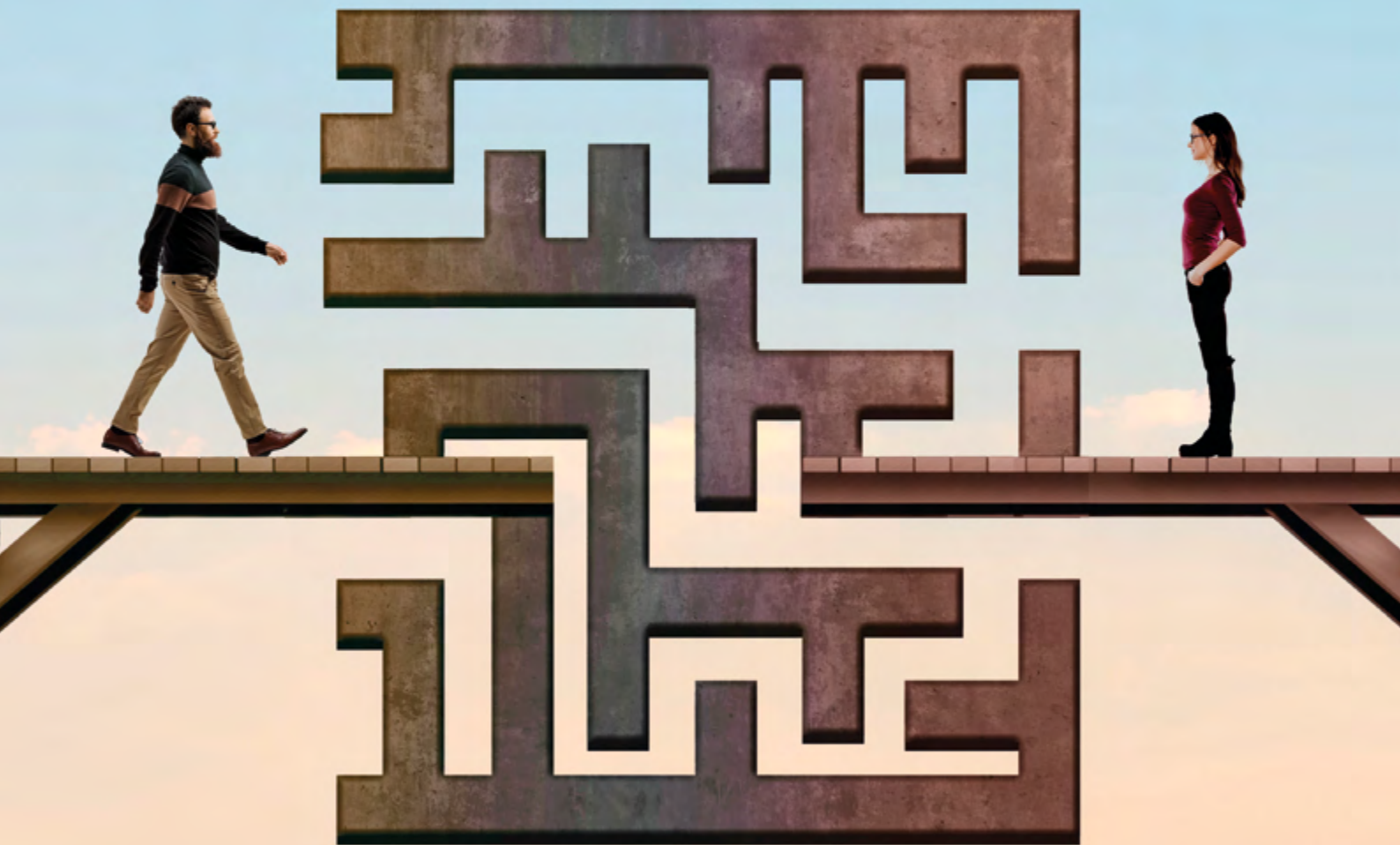


Annual Report 2019



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Editor's message

The TSE Sustainable Finance Centre has completed its first full year of fruitful research and events. We recognise that we can achieve very little alone and are deeply grateful to our donors and partners for their continual support. A lot of what is described in this report has been made possible thanks to their support.

The year end was rather eventful for the center, with the inaugural conference dedicated to economics of sustainable finance which gathered several academics, stakeholders and decision-makers in Toulouse.

This annual report provides an overview of the Center's activity and production during 2019.

Sophie Moinas

Director, TSE Sustainable Finance Center

Key figures

7 donors

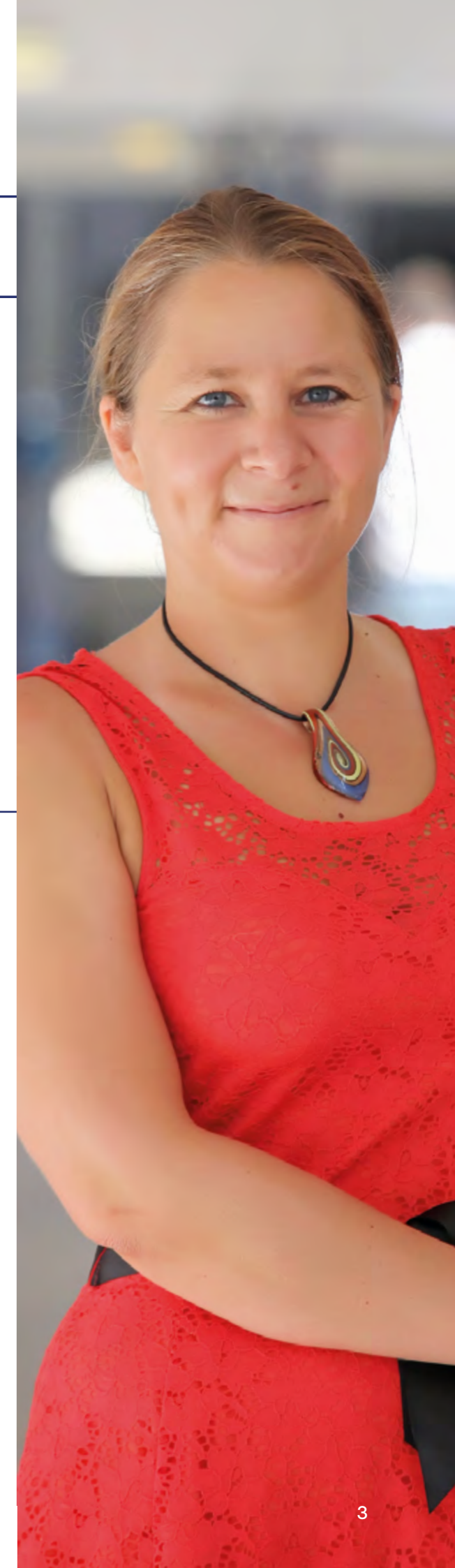
39 researchers

7 academic conference

23 seminars

21 working papers

30 academic papers



About the center

- Scientific team
 - Four research programs
-

Scientific team

Over 35 highly renowned scholars working together on the economics of sustainable finance.

Permanent researchers

- Ingela Alger
- Stefan Ambec
- Marianne Andries
- Tiziana Assenza
- Andrea Attar
- Milo Bianchi
- Christophe Bisière
- Christian Bontemps
- Catherine Casamatta
- Frédéric Cherbonnier
- Fabrice Collard
- Jean-Paul Decamps
- Fany Declerck

- Roberta Dessi
- Martial Dupaigne
- Patrick Fève
- Christian Gollier
- Catarina Goulao
- Alexandre Guembel
- Ulrich Hege
- Christian Hellwig
- Jean-Marie Lozachmeur
- Thomas Mariotti
- Nour Meddahi
- Sophie Moinas
- Sébastien Pouget
- Arnaud Reynaud
- Silvia Rossetto
- François Salanié

- Emmanuel Thibault
- Jean Tirole
- Nicolas Treich
- Stéphane Villeneuve
- Nicolas Werquin

Associate researchers

- Bruno Biais
- Simone M. Sepe
- René Garcia
- Jean-Charles Rochet
- Ying Liang

Four research programs

The center is structured around four main themes:

- Responsible Finance & Long-Term Investments
- Financial Technologies & Digital Markets
- Financial Behaviors, Welfare & Market (In) Efficiencies
- Financial Intermediaries & Regulation

Outreach

- Published books
- Prizes and awards
- Press articles
- Events

Published books



“ In my book, I try to combine the basic principles leading to a transparent methodology for evaluating investment choices with a socially responsible approach. I propose identifying the different sources of non-financial performance, such as safety at work or the reduction of inequalities, as well as the various emissions of pollutants.

In addressing socially responsible investment (SRI) funds, my aim is to make them aware of the importance of including carbon prices and negative externalities into their investment valuations and portfolio allocations, as well as simply maximizing returns.

For example, companies are currently obliged to publish their carbon emissions in their annual reports. SRI funds should therefore look at corporate emissions and multiply them by the price of carbon, and then re-incorporate this cost in their valuations.

They should also adopt the same method for other negative externalities, and even for positive externalities such as well-being within the company and wage increases for the lowest paid employees (possibly because of relocation), which helps reduce global inequality.

In general, SRI funds adopt a 'best-in-class' view, but without really quantifying emissions. Instead they make relative comparisons between companies according to their degree of social responsibility. My approach goes much further.

I propose using quantitative finance techniques, particularly the Markowitz model, on dividend-per-share profitability data, which includes non-financial performance ethically evaluated under an SRI filter. It doesn't matter that SRI funds post different values for positive and negative externalities. What is important is that investors can choose in accordance with their own ethical preferences. This would also make SRI funds more transparent, and therefore more attractive.

Christian Gollier

TSE Director

The carbon tax: a call to arms

A new book *Le climat après la fin du mois* by Christian Gollier has received widespread coverage in the French national press. According to Le Point, his book 'pulverizes' widely held misconceptions about the carbon tax.

An original and insightful thinker, Christian expresses his hope as well as his doubts about our ability to meet the climate challenge and proposes concrete economic solutions to preserve the future of all. To avoid catastrophe, he argues that we need to start making sacrifices now.



Prizes and awards

Banque de France – TSE Prizes in Monetary Economics and Finance

Banque de France and TSE have launched a series of prizes in monetary economics and finance. These annual prizes distinguish academic researchers (both senior and junior) who have developed central concepts to improve our understanding in this field.

The aim of the prizes is to foster conceptual progress that will eventually allow the design and implementation of improved policies by central banks. In March, the prizes were presented by François Villeroy de Galhau, Governor of Banque de France, at a special event in Paris. Traditionally, the laureates deliver a technical talk presenting their work to a large audience.



Senior Prize:
Michael Woodford
(Columbia University)



Junior Prize (Europe):
Victoria Vanasco
(Centre de Recerca en
Economia Internacional (CREI))



Junior Prize (World):
Yuriy Gorodnichenko
(University of California, Berkeley)



Fabrice Collard

Maurice Allais Prize

Fabrice Collard, CNRS Research Director (TSE), Michel Habib, Professor (University of Zurich, Department of Banking and Finance) and Jean-Charles Rochet, Professor (University of Geneva, Geneva Finance Research Institute & Associate Researcher at TSE), have been awarded the 2019 Maurice Allais Economics Prize for their article entitled "Sovereign Debt Sustainability in Advanced Economies", published in 2015 in the *Journal of the European Economic Association*.

In their paper, the authors propose a model that presents major advances in economic policy. In particular, it provides a model for assessing a country's maximum sustainable debt-to-GDP ratio, but also for calculating a theoretical probability of default for each country.

Awarded every two years by the Maurice Allais Foundation, this prize aims to encourage research in economics conducted along the lines outlined by Maurice Allais and respecting his scientific methodology: a permanent confrontation of theories with observed facts, with no connection whatsoever to any ideology.

Events

Conferences

- **Climate Change: Economic and Financial Impact**,
Paris, Banque de France, December 13

Climate change is a major concern for central banks for two reasons: It will deeply impact financial risks and therefore asset valuations and the balance sheets of financial institutions. It will impact individual economic behaviors and hence the level and volatility of GDP growth or the inflation rate.

This workshop aims at discussing both fundamental and applied research on climate change related to the core activity of central banks. This includes a discussion of various types of models usable to formalize the interplay between climate change. It also includes presentations of empirical assessments of the various policy tools implemented to change carbon-consumption behaviors.

in présence of

François Villeroy de Galhau, Governor of Banque de France & **Nicolas Hulot**, former French Minister for Environment



- **TSE Sustainable Finance Inaugural Conference**, Toulouse, December 5-6

The TSE Sustainable Finance Center has launched its inaugural conference this winter in Toulouse. This biennial academic event has brought together renowned academicians from international universities as well as the partners of the center. Stimulating exchanges and panel discussions on topics such as Financing energy transition, Digital currencies, Finance Intermediaries and Regulation, Financial markets inefficiencies...



Rod Garratt (University of California Santa Barbara)



Yesha Yadav (Vanderbilt Law School)

• **Markets, Morality and Social Responsibility**, Toulouse, November 29

The Markets, Morality and Social Responsibility conference has taken place on Friday 29 November at Toulouse School of Economics. This one-day conference was divided into four sections. It gathered high-level academics and aimed to provide an overview of markets, morality and social responsibility issues.

• **The Future of the International Monetary System**, Banque Centrale du Luxembourg, September 17

On September 17, central bankers and leading academics met at the Banque Centrale du Luxembourg-TSE conference to discuss some of the monetary policy challenges facing the world in the 21st century.

The opening lecture at the Luxembourg event was delivered by **Gita Gopinath**, chief economist at the IMF. Gita then was joined by ECB chair **Philip Lane**, **Claudio Borio** (Bank for International Settlements), and **Hélène Rey** (London Business School) for presentations and a dynamic panel discussion on “*The Future of the International Monetary System*”.

Subsequent presentations and panel discussion, led by TSE chair **Jean Tirole**, BCL governor **Gaston Reinesch**, and **Maurice Obstfeld** (University of California, Berkeley), focused on “*Crypto-assets, Central Bank Digital Money and Libra: Implications for the International Monetary System*”.



From left: Claudio Borio (Bank for International Settlements), Jean Tirole (Chair, TSE), Gita Gopinath (IMF), Gaston Reinesch (Governor, BCL), Maurice Obstfeld (UC Berkeley), Hélène Rey (London Business School), Philip Lane (Chair, ECB), Benoît Coeuré (ECB)

• **The PRI Academic Network Conference 2019**, Paris, September 9

The 11th annual PRI Academic Network Conference 2019 has taken place on Monday 9 September at the Hyatt Regency Paris Etoile, developed in collaboration with the Research Chair on Sustainable Finance and Responsible Investments (Chaire FDIR) at Toulouse School of Economics and École Polytechnique.

Delivering the latest research on responsible investment practices, this one-day conference aims to bridge the gap between academic researchers in sustainability and investors leading the way in RI. The event offered a unique opportunity for academics and investors to engage with each other, learn and discuss the latest insights, and to network.

The PRI conference was developed by Catherine Casamatta and Sébastien Pouget within the scope of the Research Chair on Sustainable Finance and Responsible Investments (Chaire FDIR) at TSE and École Polytechnique.



The PRI Outstanding Research Submitted papers awarded for the best quantitative paper and the best student paper



Patricia Crifo (Ecole Polytechnique and Paris Nanterre University) presents the results of her research on impact measurements carried out as part of the FDIR Chair.

• **New Challenges in Insurance**, CNAM, Paris, September 5–6

The insurance sector faces major challenges (ageing, environmental risks, digitalisation and big data) that are likely to lead to a restructuring of the sector. The SCOR-TSE chair “*Market risks and Value creation*” is organizing a two-day conference gathering academics and practitioners which aims to provide an overview of these issues. The conference includes 12 selected academic talks and a roundtable on the theme “*Insurance technological changes, Big data, connected devices and customization*”.



Pablo Koch-Medina (University of Zurich)



Caroline Hillairet (ENSAE - CREST Paris)



Bertrand Villeneuve (Université Paris Dauphine)



Elisa Luciano (Università di Torino)



Jean-Paul Décamps (TSE)



Emirhan Ilhan (Frankfurt School of Finance & Management)

• **Financial Econometrics Conference**, Toulouse, France: TSE, May 17–18

The Financial Econometrics conference is organised every year in Toulouse School of Economics. This year's event addressed topics such as New Robust Inference for Predictive Regressions or The Evaluation of Model Risk for Probability of Default and Expected Loss.

• **Cérémonie de remise du Prix Banque de France - TSE**, Banque de France - Paris, March 14

See article on page 8

Press articles

• **Scor** : Deux contributions fondamentales à l'économie du risque ont été primées lors du dernier séminaire de l'EGRIE, **Christian Gollier**, *Zonebourse*, September 27, 2019

• Pourquoi baisser l'impôt des hauts revenus est efficace, by **Frédéric Cherbonnier**, *Les Echos*, May 9, 2019

• Les banques centrales ne sont pas toutes puissantes, by **Michael Woodford** on the Banque de France - TSE Prize, *Le Monde*, March 15, 2019

• Réduire les dépenses publiques, oui, mais au bon endroit, by **Frédéric Cherbonnier**, *Les Échos*, February 28, 2019

• Sommes-nous à la veille d'une nouvelle crise financière ? [Radio], with **Jean Tirole**, *RTBF*, February 27, 2019

• L'industrie financière doit s'engager à prévenir la menace d'une prochaine grande crise écologique et sociale, by **Stephane Villeneuve & collective**, *Le Monde*, January 29, 2019

Seminars

The Center organizes weekly academic seminars allowing the faculty and members to meet with and exchange ideas with fellow financial experts, often from renowned universities. Seminars are also an opportunity for PhD researchers to get insightful information on various topics such as: bitcoin, venture capital, banking crisis.

- Boris Vallee (*Harvard University*), "Weak Credit Covenants", *Finance seminar, December 16*
- Vladimir Vladimirov (*University of Amsterdam*), "Financing Skilled Labor", *December 9*
- Marianne Andries (*Toulouse School of Economics*), "Ambiguous Trade-offs, an Application to Climate Change", *November 25*
- Francesco D'Acunto (*Boston University*), "Trust and Contracts: Empirical Evidence", *November 18*
- Katrin Godker (*Maastricht University*), "Investor Memory", *November 4*
- John Kuong (*INSEAD*), "Dealer Funding and Market Liquidity", *October 14*
- Caroline Flammer (*Boston University*), "Improving the Corporate Governance of Non-Profits and the Implications for their Social Impact : Evidence from a Randomized Program in Healthcare in the Democratic Republic of Congo", *October 7*
- Hugues Dastarac (*Toulouse School of Economics - Banque de France*), "Broker-dealers as arbitrageurs? Evidence from the US corporate bond market", *September 30*
- Stefano Rossi (*Bocconi University*), "Credit Cycles, Expectations, and Corporate Investment", *September 23*
- Alon Brav (*Duke University*), "Picking Friends before Picking (Proxy) Fights : How does Mutual Fund Voting Shape Proxy Contests ?", *September 16*
- Matti Keloharju (*Aalto University*), "CEO Health", *September 9*
- Guillaume Roger (*University of Wollongong*), "Dynamic contracting under soft information", *June 27*
- Adrien Matray (*Princeton University*), "Higher dividend taxes, no problem! Taxing Entrepreneurs in France", *June 24*
- Rui Silva (*London School of Economics*), "The Impact of Going Public on the Firm's Human Capital", *June 3*
- Piero Gottardi (*University of Essex*), "A General Equilibrium Theory of Capital Structure", *May 27*
- Artem Neklyudov (*University of Lausanne and SFI*), "Ideas-Driven Endogenous Growth and Standard-Essential Patents", *May 20*
- Claudia Custodio (*Imperial College London*), "The Impact of Financial Education on Medium and Large Enterprises - Evidence from a Randomized Controlled Trial in Mozambique", *May 13*
- Roman Kozhan (*Warwick Business School - University of Warwick*), "Predictability of Order Imbalance, Market Quality and Equity Cost of Capital", *May 6*
- Simon Mayer (*Erasmus University Rotterdam*), "Corporate Liquidity Management under Moral Hazard", *April 15*
- Jing Zeng (*Frankfurt School of Finance & Management*), "Off-Balance Sheet Funding, Voluntary Support and Investment Efficiency", *April 1*
- Laurent Fresard (*University of Lugano*), "Technological Disruptiveness and the Evolution of IPOs and Sell-Outs", *March 25*
- Gur Huberman (*Columbia Business School - Columbia University*), "An Economic Analysis of the Bitcoin Payment System", *March 18*
- Dimitrios Tsomocos (*Saïd Business School - University of Oxford*), "Optimal Bank Regulation - In the Presence of Credit and Run Risk", *March 11*



Publications

- Academic papers
- Working papers

Academic papers

- Marianne Andries and Valentin Haddad, "Information Aversion", *Journal of Political Economy*, 2020, forthcoming.
- Christian Gollier, "Aversion to risk of regret and preference for positively skewed risks", *Economic Theory*, 2020, forthcoming.
- Stefan Ambec and Claude Crampes, "Decarbonizing electricity generation with intermittent sources of energy", *Journal of the Association of Environmental and Resource Economists*, vol. 6, n. 6, November 2019, pp. 919–948.
- Paul Beaudry, Patrick Fève, Alain Guay and Franck Portier, "When is Nonfundamentalness in SVARs A Real Problem?", *Review of Economic Dynamics*, vol. 34, October 2019, pp. 221–243.
- Francesca Barigozzi, Helmuth Cremer and Kerstin Roeder, "Till taxes do us part: tax penalties or bonuses and the marriage decision", *European Economic Review*, vol. 118, September 2019, pp. 37–50.
- Tim Bollerslev, Nour Meddahi and Serge Nyawa, "High-dimensional multivariate realized volatility estimation", *Journal of Econometrics*, vol. 212, n. 1, September 2019, pp. 116–136.
- Andrea Attar, Eloisa Campioni and Gwenaël Piaser, "Private Communication in Competing Mechanism Games", *Journal of Economic Theory*, vol. 183, September 2019, pp. 258–283.
- Andrea Attar, Catherine Casamatta, Arnold Chassagnon and Jean-Paul Décamps, "Contracting Sequentially with Multiple Lenders: the Role of Menus", *Journal of Money, Credit and Banking*, vol. 51, n. 4, June 2019, pp. 977–990.
- Bruno Biais, Christophe Bisière, Matthieu Bouvard and Catherine Casamatta, "The blockchain folk theorem", *The Review of Financial Studies*, vol. 32, n. 5, May 2019, pp. 1662–1715.
- Andrea Attar, Catherine Casamatta, Arnold Chassagnon and Jean-Paul Décamps, "Multiple Lenders, Strategic Default and the Role of Debt Covenants", *American Economic Journal: Microeconomics*, vol. 11, n. 2, May 2019, pp. 98–130.
- Andrea Attar, Thomas Mariotti and François Salanié, "On a Class of Smooth Preferences", *Economic Theory Bulletin*, vol. 7, n. 1, May 2019, pp. 37–57.
- Patrick Fève, Alban Moura and Olivier Pierrard, "Financial Regulation and Shadow Banking: A Small-Scale DSGE Perspective", *Journal of Economic Dynamics and Control*, vol. 101, April 2019, pp. 130–144.
- Milo Bianchi and Jean-Marc Tallon, "Ambiguity Preferences and Portfolio Choices: Evidence from the Field", *Management Science*, vol. 65, n. 4, April 2019, pp. 1486–1501.
- Tiziana Assenza and Domenico Delli Gatti, "The financial transmission of shocks in a simple hybrid macroeconomic agent based model", *Journal of Evolutionary Economics*, vol. 29, n. 1, March 2019, pp. 265–297.
- Christian Bontemps, "Moment-based tests under parameter uncertainty", *The Review of Economics and Statistics*, vol. 101, n. 1, March 2019, pp. 146–159.
- Christian Gollier, "Valuation of natural capital under uncertain substitutability", *Journal of Environmental Economics and Management*, vol. 94, March 2019, pp. 54–66.
- Patrick Fève and Alain Guay, "Sentiments in SVARs", *The Economic Journal*, vol. 129, n. 618, February 2019, pp. 877–896.
- Alexander Guembel and Oren Sussman, "The Pecking Order of Segmentation and Liquidity-Injection Policies in a Model of Contagious Crises", *The Review of Economic Studies*, 2019, forthcoming.
- Marianne Andries, "L'aversion au risque, composante essentielle du prix du risque, est-elle stable dans le temps?", *Revue d'économie financière*, n. 133, January 2019, pp. 45–59.
- Ingela Alger, Laura Juarez, Miriam Juarez-Torres and Josepa Miquel-Florensa, "Do informal transfers induce lower efforts? Evidence from lab-in-the-field experiments in rural Mexico", *Economic Development and Cultural Change*, 2019, forthcoming.
- Ulrich Hege and Pierre Mella-Barral, "Bond Exchange Offers or Collective Action Clauses?", *Finance*, 2019, forthcoming.
- Jean-Paul Décamps and Stéphane Villeneuve, "A two-dimensional control problem arising from dynamic contracting theory", *Finance and Stochastics*, vol. 23, n. 1, January 2019, pp. 1–28.
- Caio Almeida, Kim Ardison and René Garcia, "Nonparametric Assessment of Hedge Fund Performance", *Journal of Econometrics*, 2019, forthcoming.
- Pierre-André Chiappori, Bernard Salanié, François Salanié and Amit Gandhi, "From Aggregate Betting Data to Individual Risk Preferences", *Econometrica*, vol. 87, n. 1, January 2019, pp. 1–36.
- Will Goetzmann, David Le Bris and Sébastien Pouget, "The Present Value Relation Over Six Centuries: The Case of the Bazacle Company", *Journal of Financial Economics*, vol. 132, n. 1, 2019, pp. 248–265.
- Denis Hilton, Nicolas Treich, Gaetan Lazzara and Philippe Tendil, "Designing effective nudges that satisfy ethical constraints: the case of environmentally responsible behaviour", *Mind & Society*, 2019, pp. 1–12, forthcoming.
- Giuseppe Marco Attanasi, Hippolyte D'Albis and Emmanuel Thibault, "An Experimental Test of the Under-Annuity Puzzle with Smooth Ambiguity and Charitable Giving", *Journal of Economic Behavior and Organization*, 2019, forthcoming.
- Jean-Charles Rochet, Max Reppen and Mete Soner, "Optimal dividend policies with random profitability", *Mathematical Finance*, 2019, forthcoming.
- Christian Gollier, "Variance stochastic orders", *Journal of Mathematical Economics*, vol. 80, January 2019, pp. 1–8.
- Andrea Attar, Thomas Mariotti and François Salanié, "On Competitive Nonlinear Pricing", *Theoretical Economics*, vol. 14, n. 1, January 2019, pp. 297–343.
- Michael Magill, Jean-Charles Rochet and Martine Quinzii, "The safe asset, banking equilibrium, and optimal central bank monetary, prudential and balance-sheet policies", *Journal of Monetary Economics*, 2019, forthcoming.

- Olivier De Groot and Frank Verboven, "Subsidies and Time Discounting in New Technology Adoption: Evidence from Solar Photovoltaic Systems", *American Economic Review*, vol. 109, n. 6, 2019, pp. 2137–2172.
- Nicolas Treich and Laurent Bègue, "Immediate and 15-Week Correlates of Individual Commitment to a "Green Monday" National Campaign Fostering Weekly Substitution of Meat and Fish by Other Nutrients", *Nutrients*, vol. 11, n. 7, 2019, p. 1694.
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- Desheng Huang, Henrik Andersson and Shiqiu Zhang, "Willingness to pay to reduce health risks related to air quality: Evidence from a choice experiment survey in Beijing", *Journal of Environmental Planning and Management*, vol. 61, n. 12, 2019, pp. 2207–2229.
- Prosper Dovonon, Silvia Goncalves, Ulrich Hounyo and Nour Meddahi, "Bootstrapping high-frequency jump tests", *Journal of the American Statistical Association*, vol. 114, n. 526, 2019, pp. 793–803.
- Christian Gollier, "Variance stochastic orders", *Journal of Mathematical Economics*, vol. 80, January 2019, pp. 1–8.
- Olivier De Groot and Frank Verboven, "Subsidies and Time Discounting in New Technology Adoption: Evidence from Solar Photovoltaic Systems", *American Economic Review*, vol. 109, n. 6, 2019, pp. 2137–2172.
- Ujjayant Chakravorty, Marie-Hélène Hubert and Beyza Ural Marchand, "Food for Fuel: The Effect of US Energy Policy on Indian Poverty", *Quantitative Economics*, 2019, forthcoming.

Working papers

- Nicolas Treich and Linqun Liu, "Optimality of Winner-Take-All Contests: The Role of Attitudes toward Risk", TSE Working Paper, n. 19-1060, December 2019.
- Dominik Sachs, Aleh Tsyvinski and Nicolas Werquin, "Nonlinear Tax Incidence and Optimal Taxation in General Equilibrium", TSE Working Paper, n. 19-1047, November 2019.
- Patrick Fève, Pablo Garcia Sanchez, Alban Moura and Olivier Pierrard, "Costly default and asymmetric real business cycles", TSE Working Paper, n. 19-1048, November 2019.
- Felix Bierbrauer, Aleh Tsyvinski and Nicolas Werquin, "Taxes and Turnout", TSE Working Paper, n. 19-1050, November 2019.
- Aleh Tsyvinski and Nicolas Werquin, "Generalized Compensation Principle", TSE Working Paper, n. 19-1051, November 2019.
- Matthew Adler, Maddalena Ferranna, James K. Hammitt and Nicolas Treich, "Fair Innings? The Utilitarian and Prioritarian Value of Risk Reduction over a Whole Lifetime", TSE Working Paper, n. 19-1054, November 2019.
- Tiziana Assenza, Alberto Cardaci and Domenico Delli Gatti, "Perceived wealth, cognitive sophistication and behavioral inattention", TSE Working Paper, n. 19-1055, November 2019.
- Ingela Alger, Boris Van Leeuwen and Jörgen W. Weibull, "Estimating Social Preferences and Kantian Morality in Strategic Interactions", TSE Working Paper, n. 19-1056, November 2019.
- Jean-Paul Décamps and Stéphane Villeneuve, "Dynamics of cash holdings, learning about profitability, and access to the market", TSE Working Paper, n. 19-1046, November 2019.
- Milo Bianchi and Philippe Jehiel, "Bundlers Dilemmas in Financial Markets with Sampling Investors", TSE Working Paper, n. 19-1042, October 2019.
- Sereeparp Anantavasilp, Abe De Jong, Douglas V. DeJong and Ulrich Hege, "Blockholder Leverage and Payout Policy: Evidence from French Holding Companies", TSE Working Paper, n. 19-1045, October 2019.
- Andrea Attar, Thomas Mariotti and François Salanié, "Regulating Insurance Markets: Multiple Contracting and Adverse Selection", TSE Working Paper, n. 19-1033, August 2019.
- Caio Almeida, Kim Ardison and René Garcia, "Nonparametric Assessment of Hedge Fund Performance", TSE Working Paper, n. 19-1024, July 2019.
- Ulrich Hege and Pierre Mella-Barral, "Bond Exchange Offers or Collective Action Clauses?", TSE Working Paper, n. 19-1016, June 2019.
- Andrea Attar, Thomas Mariotti and François Salanié, "The Social Costs of Side Trading", TSE Working Paper, n. 19-1017, June 2019, revised October 2019.
- Andrea Attar, Eloisa Campioni and Gwenaël Piaser, "Private Communication in Competing Mechanism Games", TSE Working Paper, n. 19-1021, June 2019.
- Andrea Attar, Eloisa Campioni, Thomas Mariotti and Gwenaël Piaser, "Competing Mechanisms and Folk Theorems: Two Examples", TSE Working Paper, n. 19-1014, June 2019.
- Christian Gollier, "A general theory of risk apportionment", TSE Working Paper, n. 19-1003, April 2019.
- Laurent Miclo and Stéphane Villeneuve, "On a Monotone Dynamic Approach to Optimal Stopping Problems for Continuous-Time Markov Chains", TSE Working Paper, n. 19-1009, April 2019.
- Claire Borsenberger, Helmuth Cremer, Denis Joram, Jean-Marie Lozachmeur and Estelle Malavolti, "Platform competition: market structure and pricing", TSE Working Paper, n. 19-1010, April 2019.
- Patrick Fève, Alban Moura and Olivier Pierrard, "Shadow Banking and the Great Recession: Evidence from an Estimated DSGE Model", TSE Working Paper, n. 19-996, March 2019.

The TSE centers showcase the research and other academic activities at TSE in a thematic area. The three existing centers are the Digital Center, the Sustainable Finance Center and the Energy & Climate Center.

These centers are created around wide, overarching topics with the scope to cover a range of industrial and policy issues affecting society at all levels.

Main donors

Amundi



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