Sustainable Finance Center

Toulouse School of Economics

Impact

2021

Annual digest of our research and activities in sustainable finance

Economics for the Common Good

Editorial

Following its huge upward leap in 2020, global investments in ESG reached a record high in 2021. While greenwashing is a growing concern, investors are increasingly aware that sustainable finance can offer better returns, as corporate boards and governments face pressure to address ESG issues such as climate change and human rights.

The TSE Sustainable Finance Center was set up in 2018 to develop world-class research in this fast-changing field. Last year, we hosted 40 seminars and our 52 economists continued to engage with firms and policymakers, producing 42 scientific publications on issues related to sustainability.

TSE researchers are also prominent voices of reason in France and the international media, and regular contributors to scientific outreach events. TSE's first Common Good Summit was the most high-profile example of their efforts to inform the public debate. Involving six Nobel prizewinners, the open-access event prompted stimulating, occasionally heated exchanges between researchers, politicians and business leaders. We look forward to the upcoming sequel on May 19-20. This report features excerpts from two of the sessions on financing the green transition and the future of debt.

Organized with TSE's Digital Center and Infrastructure & Network Center, our Sustainable Finance conference was another of the year's multifaceted highlights. Leading experts discussed the latest research on sustainable finance, including the role of socially responsible investors and shareholder engagement, green monetary policy and corporate carbon policies. The event also incorporated the inaugural conference of the FIT IN initiative, which seeks to promote financial inclusion in developing countries by improving access to digital payment systems.

The Center's continued success in 2021 - despite the "new normal" of Covid-19 disruptions - has been built on the unrelenting enthusiasm and ingenuity of our staff and researchers. We would also like to recognize the contributions of our partners who provide generous funding for independent research, as well as invaluable data, ideas, and real-world perspectives. In particular, we are delighted to begin new partnerships with Getlink, the Eurotunnel operator, and Danone, that will help to advance our understanding of environmental and other corporate social responsibility issues. Similarly, we welcome the renewal of our partnership with Banque centrale du Luxembourg, which has supported research at TSE since 2015.

We also thank our readers for their interest and look forward to bringing news of more exciting developments at the Center in 2022.

Sophie Moinas, *Director of the TSE Sustainable Finance Center*

About the Sustainable Finance Center

The TSE Sustainable Finance Center was launched in 2018 to promote innovative research on emerging issues in economics and finance focusing on the challenges of finding sustainable finance solutions and assessing their impact on society. Created with the help of industrial and institutional partners, the Center facilitates a productive dialogue between researchers, businesses, financial institutions, and policymakers.

The Center includes 52 academics working in finance, macroeconomics, environmental economics, psychology and public economics. Their innovative research benefits from the support, data and real-world experience of industrial partners, who also help with disseminating cutting-edge TSE ideas and findings to firms, policymakers and the wider public.

Scientific production

- Development of new knowledge resulting in academic publications
- Organization of scientific conferences and seminars

Dissemination of economic knowledge

- Production of outreach materials and organization of bespoke events to inform practitioners, policymakers or a wider audience
- Participation of researchers in the public debate in France and internationally

2021 by numbers

52 researchers

12 partners

7 TSE grants awarded

4 TSE-Banque de France prizes

40 seminars

1 international conference

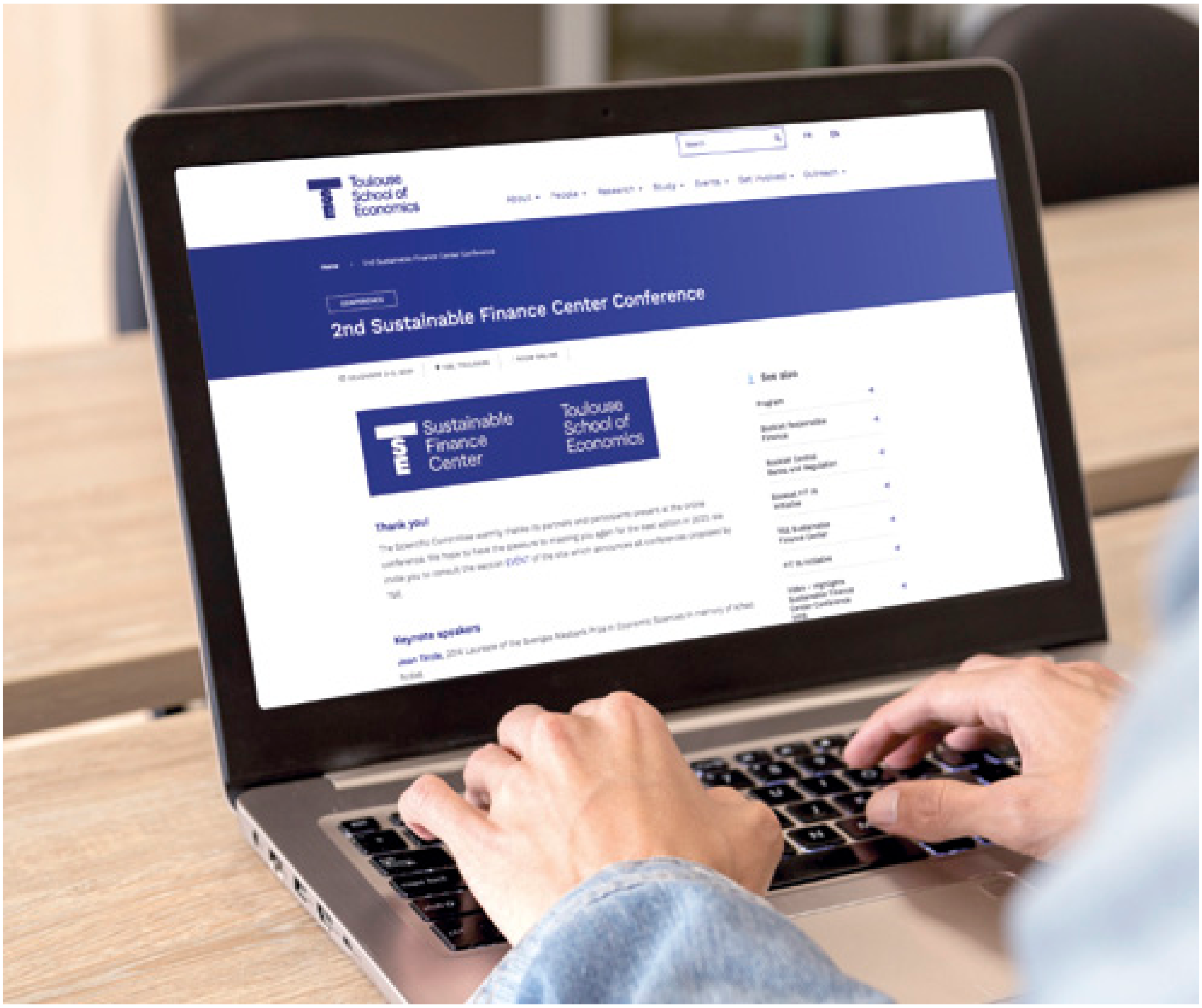
42 scientific publications

Highlights

2nd Sustainable Finance conference

At the 2nd Sustainable Finance conference in December 2021, TSE was delighted to welcome partners and participants from across the socially responsible investment industry to share ideas and insights with its world-class research community.

This was a particularly dynamic, multi-center event, engaging the diverse strengths of TSE's Digital Center and Infrastructure & Network Center as well as those of our own Sustainable Finance Center.



Financing the future

2nd SUSTAINABLE FINANCE CONFERENCE

December 2–3 2021, online

Spread over two days, talks and discussions at the Sustainable Finance conference ranged from the role of responsible investors and shareholder engagement, to green monetary policy, corporate carbon policies, mobile money in Africa, and the fintech revolution. Jean Tirole (2014 Nobel laureate) gave a memorable presentation on markets and morality, followed by another illuminating keynote speech by his frequent coauthor Jean-Charles Rochet on the impact of a central bank digital currency.

The event also incorporated the inaugural conference of the FIT IN initiative, which seeks to promote financial inclusion by improving the accessibility and quality of digital payment systems for the poorest. Two lively sessions showcased some of the latest economic analysis that aims to inform policymakers about the design and regulation of interoperable financial services.

We thank everyone involved for their effort and enthusiasm in building connections between researchers, regulators, commercial providers, and practitioners, and look forward to building on the interest and excitement generated by this event for the next Sustainable Finance conference in 2023.

Do markets erode morality?

Is the market weakening our moral compass? This question not only reflects widespread fears, it also affects our stance towards competition-enhancing policies such as the opening of borders to free trade, antitrust law, and deregulation. At the Sustainable Finance conference, TSE's Jean Tirole presented his latest research with Mathias Dewatripont (Université libre de Bruxelles) on this age-old concern. Warning against blanket moral condemnation of markets and pro-competitive institutions, their conceptual framework shows that competition is often ethically neutral and may even foster moral behavior. In those situations in which competition does erode moral behavior, they find that intense competition erodes supplier morality by offering consumer choice – 'If I don't do it, someone else will' – but not other stakeholders' ethics.

While many 18th-century thinkers believed that markets help to build trust (Montesquieu's "*doux commerce*"), in today's public opinion, many social scientists, politicians and religious leaders feel that markets promote unethical behavior. Numerous prominent philosophers have warned against the religion of the marketplace, with a variety of viewpoints from the necessity to ban repugnant markets to the stance that a market economy is an unlikely path to a harmonious society.

In addition, some recent experimental work demonstrates in specific environments the power of "replacement logic", the idea that if a supplier refuses to engage in an immoral trade, "someone else will". This work echoes widespread narratives used by firms and countries selling weapons to dictatorships or bribing officials to win a contract, by banks selling toxic products or providing short-term incentives to talents they want to attract, by employees ingratiating themselves to their superiors in order to be promoted, by doctors overprescribing opioids and antibiotics, by professional athletes taking illicit drugs to defeat their competitors, by farmers exploiting animals, or by companies whitewashing their products' potential shortcomings. Does intense competition make such behaviors lose their moral overtones and become mere "costs of doing business"?

As critics of market economies have long emphasized, the institutional context may frame our ethical choices. Competition may strengthen incentives to cut ethical corners in order to please the consumer or to cut costs, raising potential concerns. The paper makes three main contributions. First, it develops theoretical foundations for this concern, providing its rationale, the three reasons why moral choices in general reinforce each other, and an exact identification of the environments in which the replacement effect affects ethical choices. When prices are fixed by regulation and consumers are irresponsible, critics of the market are vindicated. Furthermore, the replacement logic is more potent, the stronger the competition and the higher the fixed price.

Second, and importantly for the public debate and public policies, the paper offers a strong warning against a sweeping condemnation of the market on the grounds that it promotes immoral behavior. A striking irrelevance result shows that the intensity of competition does not affect behavior as long as prices are flexible or when moral behavior impacts the cost but not demand. Furthermore, an increase in competition fosters moral behavior when prices are fixed and consumers are socially responsible. Overall, the presumption should be that competition, unlike values, cannot be the overriding source of moral problems in trade; at the very least, it is ill-advised to blame the market for immoral behavior and to question the appropriateness of competition policy, anti-bottleneck regulation and competition though trade, without specifying in detail the nature of competition.

Third, the paper derives the impact of competition among suppliers who differ in their ethics, either intrinsically or because of their corporate mission. The idea is that some actors' prices may be *de facto*, although not *de jure*, fixed, as they must equate revenue with cost. Not-for-profits behave more ethically than for-profit suppliers; and among the latter, more ethical suppliers tend to behave more ethically than less ethical ones. Most importantly, intense competition in the market leads to a race to the for-profit-supplier ethical bottom. This suggests not mixing corporate forms within the same competitive markets if the goal is to encourage moral behavior through subsidies or lighter regulation for not-for-profits.

Should central banks provide a digital currency?

Will traditional banking survive in the digital era? As a keynote speaker at the Sustainable Finance conference, TSE's Jean-Charles Rochet examined the erosion of the centuries-old partnership between central and commercial banks, accompanied by rising demand for a central bank digital currency (CBDC).

In the traditional "two-tier" structure, commercial banks manage the retail accounts of consumers; meanwhile, the central bank manages the reserve accounts of the banks. Today, this structure is jeopardized by both fintech innovation, which allows the "unbundling" of deposits and credit; and Big Tech platforms, which are "rebundling" financial services with their core services. The threat to the traditional model from cryptocurrencies and other digital innovations is even more serious because it may apply to banks and central banks.

Why create a CBDC?

The pros and cons of a CBDC depend on countries' specifics, such as a users' preference for physical cash and anonymity, the degree of financial inclusion, and the intensity of bank competition and data governance arrangements. In many countries, the share of cash and daily transactions is falling. It is argued that the central bank has a mandate to provide legal tender to all in a convenient form; so if people don't want cash anymore, it should provide digital cash.

Regulators are also fed up with the huge costs for merchants through the manipulation of interchange fees on credit cards. Even if digital payments are more efficient than cash, they are often very expensive; so the idea is to stimulate competition. However, there is the tradeoff between low transaction costs and the risk of a digital run. If it's very easy for a consumer to transfer all their money, it's a possible vehicle for instability. A CBDC may be more efficient but it will also crowd bank deposits, raise banks' funding costs and decrease investment.

CBDCs could significantly improve the quality of cross-border payment services, which have extremely high fees, especially for retail users. If most countries agreed to create CBDCs connected through a more efficient system, it could improve considerably the functioning and costs of the foreign exchange market.

How should it be designed?

Some observers suggest that the central bank could "recycle" funds by lending to the banks but this may increase counterparty risk and favoritism. It is hoped that a CBDC can stimulate competition for payments and credit services but also eliminate the risk of domination by a few platforms. But it's difficult to preserve competitive neutrality if the central bank is both supervisor and operator. A mixed solution already exists in most developed countries because, for large-value interbank payments, a private system run by the banks coexists with a public system run by the central bank.

A "minimally invasive" CBDC that maintains the two-tier structure could have a very limited financial system footprint, like cash today. To make the CBDC available to the general economy, there are different possibilities depending on the level of anonymity required, including account-based or token-based CBDCs. It is not clear whether a CBDC is necessary for a socially optimal payment system. Maybe a fast payment system with appropriate regulation could suffice. In any case, a one-size-fits-all solution is unlikely to be optimal.

How should firms fight climate change?

Ulrich Hege

The climate challenge has become an urgent priority for corporate strategy, in response to the increasing environmental concerns of shareholders, customers, employees and other stakeholders, and in a context of fast-changing energy regulations and political demands. At the Sustainable Finance conference, TSE's Ulrich Hege gave an overview on 'Carbon Policies and Corporate Strategy', discussing the need for ambitious low-carbon strategies and targets, and the role of voluntary emissions reporting, internal carbon pricing, decisions on scope by incorporating indirect emissions, and carbon offset markets. Here, he discusses some of his main recommendations for socially responsible firms and investors.

How should firms coordinate their CSR strategies with government climate policies?

Corporate Social Responsibility (CSR) efforts and governments compete for the same broad objectives. Subsidiarity should be a key guiding principle: CSR policies are socially beneficial when corporations are more efficient than government in producing public goods. Governments should intervene when private actors would be ineffective, due to coordination problems, for example, or the need for coercive enforcement. In turn, corporate actors can mitigate government failures due to political inertia, lobbying and capture, limited territoriality, and inefficiencies in public decision-making. Governments are unlikely to adopt efficient policies without pressure from civil society and support from corporate policies. In particular, corporate stakeholders and other interested parties must be vigilant about the implementation of Article 6 in the Paris Agreement, the successor to the Kyoto mechanism that was finally agreed in principle at COP26 in Glasgow, and ensure that traded permits correspond to truly additional investments in reducing carbon emissions.

Do companies need to adopt carbon targets, like net-zero 2050?

Yes. Long-term quantity goals matter and GHG emissions are the single most measurable ESG objective. But abatement costs differ and net-zero 2050 for everyone cannot be efficient. Carbon targets should be granular and sector- or company-specific. They should be fixed in accordance with the social cost of carbon, with a detailed strategy and verifiable annual milestones. And beware of metric shopping: ESG asset managers will always report more impressive carbon reductions than there are in reality.

Should firms disclose information about environmental practices?

Disclosure is a vital tool to measure social impact. Managerial incentives are determined by contractual compensation and career concerns. Then there are the costs of disclosure and concerns about competitors. Voluntary disclosure, therefore, will be insufficient unless shareholders and institutional investors signal that they care about climate and other social externalities. Several empirical studies find that mandatory disclosure leads to measurable improvements in ESG scores, which may also improve valuation. Many of these benefits arise because of standardization. To be useful, disclosure mandates must be enforceable and allow stakeholders to hold firms accountable; help investors and stakeholders to process information and compare firms; introduce industry-customized benchmarks; and reduce the cost of capital or improve liquidity.

What about an internal carbon price?

Adopting an internalized price of carbon (IPC) has become very popular but it would be redundant if firms were fully covered by an effective regulatory carbon price. However, an IPC can be very useful to leverage the power of internal communication and incentives, especially to monitor the internal consistency of carbon targets. Socially responsible raters and investors will appreciate its transparency and predictability. What should be the level of the IPC? The best benchmark is the estimated social cost of carbon. Firms should present long-term investment decisions in accordance with climate policy scenarios. Companies need to be mindful of competitiveness but that cannot be an excuse to lag behind. The energy transition will accelerate green innovation that we can view as a process of 'green creative destruction'.

What are the key lessons for firms joining the climate fight?

Strong corporate carbon policies can create value. Firms that operate globally should adopt internationally harmonized CSR policies and develop long-term strategies for decarbonization. By doing so, firms also play a role in encouraging governments to act and in facilitating the process of worldwide climate coordination Thus, effective corporate carbon policies can interact with government policies, filling gaps and overcoming deadlocks. For example, the use of internal carbon prices can complement government efforts by signaling corporate willingness to adapt to rising carbon prices and to undertake long-term investments. Using markets for carbon offsets, pioneered by the Kyoto protocol, is intellectually attractive, but the problem of verifying net benefits will likely never be entirely solved. Corporate policies should therefore always abstain from offset markets that are too cheap to be genuine, and be meticulous and transparent in their use of offsets as opposed to genuine in-house abatement efforts.

Financial services for the poor?

Everyone deserves access to decent financial services, especially the most vulnerable. With this goal in mind, TSE launched the FIT IN Initiative (Financial Inclusion Through INteroperability) in November 2020. Developed at the crossroads between our Digital Center, Sustainable Finance Center, and Infrastructure & Network Center, this project seeks to catalyze new research that can constructively influence the design and regulation of interoperable digital payment systems in developing countries.

The main objective of this four-year research initiative is to better understand the implications of alternative competition and regulatory policies and ultimately inform policies to expand the scope, improve the quality and reduce the cost of digital payment systems for impoverished users.

Combined with the Sustainable Finance Center's conference in December 2021, the inaugural FIT IN conference featured two lively sessions showcasing some of the latest economic analysis in digital finance. Bringing together international experts in this field, the conference aimed to inform policymakers and facilitate connections between researchers, regulators, commercial providers and practitioners.

Mobile money and financial inclusion

In the opening session, the speakers presented their research on Sub-Saharan Africa, where remittances account for 2.5% of the region's GDP and transfer costs are among the highest in the world. As Jenny Aker *(Tufts University)* pointed out, the potential for digital financial services to reduce remittance fees for the rural poor is particularly high in this region, especially in areas with high rates of mobile phone ownership. Catia Batista *(Nova)* discussed her findings from a randomized controlled trial (RCT) in Mozambique. She found that, by reducing remittances costs and improving insurance possibilities, mobile money can accelerate migration to urban areas. In another RCT among female microfinance groups in rural Ghana, Emma Riley *(University of Washington)* found that incentives to encourage others to use mobile banking were particularly effective, highlighting the importance of thinking about technology adoption within peer networks.

Digital payments and financial services

In the second session, researchers discussed their investigation of the new relationships emerging between banks, Big Tech platforms, fintech payment providers, and consumers. Michael Sockin *(University of Texas)* presented his analysis of how data privacy policies such as Europe's GDPR might affect the welfare of consumers who differ in their ability to resist temptation. Using a model in which processing payments allows providers to learn about customers' creditworthiness, Uday Rajan *(University of Michigan)* suggested that competition from fintechs affects a bank's price for payment services and its loan offers. This competition promotes financial inclusion but may hurt consumers with a strong bank preference. In a similar vein, Yao Zeng *(Wharton)* offered empirical evidence of an informational synergy between fintech lending and cashless payments. This synergy provides an economic rationale for open banking, and more broadly for data sharing and a lending model without traditional banking relationships.

FIT IN affiliates

To further this project and enhance the initiative's research, an affiliate network was created in December 2021.

Composed of non-TSE academic and policy affiliates, they bring considerable expertise in finance, banking, telecom and digital sectors.

More information on FIT IN affiliates is available online

Can shareholder engagement promote social responsibility?

At the Sustainable Finance Conference, leading fund managers and CSR executives were invited to join a high-profile roundtable on 'Shareholder Engagement and Corporate Social Responsibility'. Their presentations were followed by a lively discussion with TSE academics about how to encourage firms to adopt CSR policies, and the challenges of accurately assessing their impact.

Chairing the event, TSE's **Sébastien Pouget** was delighted with the opportunity to learn about real-world CSR developments and engage with non-academic perspectives. The panelists recognized CSR as a source of value creation and risk reduction, in addition to its social benefits, but a recurrent concern focused on the difficulty in measuring firms' social impact. *"We are in a jungle of rating agencies and label standards, comparing very different sectors, very different countries,"* said **Vincent Ducros**, Group Environment Director at GetLink, the Eurotunnel operator. *"There are no easy standards in place, like IFRS. Shareholders also have their own assessments sometimes and it can lead to absurd situations."*

"The roundtable session provided us with some very interesting insights. It's always great for us researchers to learn more about what is going on in the field and we were very lucky to have a very wide panel of practitioners from all the important players in the socially responsible investment industry, both the asset managers, the second-generation rating agency, and the firms.

Sébastien Pouget, TSE, co-director of the Research Initiative on Sustainable Finance and Responsible Investment

Nathalie Thiollet, Managing Director of Impak Finance rating agency, was optimistic that improvements are being made in data standardization. *"We are collecting data that needs to be contextualized against international sectorial standards. This is taking a lot of time because the data needs to be controlled and verified before it is used in our score,"* she said. *"Another challenge is asset managers' lack of knowledge about impact. If we want to move to an impact economy we also need to train professionals and investors about how to use our data."*

Acknowledging the importance of improved reporting to ensure transparency and accountability, the panel's asset managers underlined the potential of collective engagement. *"We had a long tradition of dialogue with TotalEnergies,"* said **Clémence Moullot,** SRI Asset Manager at Edmond de Rotchschild. *"To be more effective, we joined with other investors at their 2020 AGM to ask for more transparency on their climate strategy and more global and precise goals on CO2. The resolution has the support of 17% of shareholders and TotalEnergies is continuously improving its strategy on climate so it was a very successful engagement."*

Guillaume Lassere, Deputy Director at La Banque Postale AM, agreed, stressing the importance of shareholder dialogue. *"Surprisingly, even if you are a small investor, engagement is a real means to change things. The example given by Clemence is good: with only a small share of the capital we succeeded in changing the trajectory of one of the major companies within the oil and gas sector."* He also noted that shareholder dialogue is an important way to address themes like biodiversity, human rights, and net-zero trajectories, where it is difficult to have coherent data for comparing companies.

Vincent Ducros
Group Environment Director
GetLink

Nathalie Thiollet
Managing Director
Impak Finance

Clémence Moullot
SRI Asset Manager
Edmond de Rotchschild AM

Guillaume Lassere
Deputy Director
La Banque Postale AM


TSE
Toulouse
chool of
conomics

Research

Research focus
& scientific projects

Scientific team & visitors

Grants & scholarships

Prizes & awards

RESEARCH FOCUS & SCIENTIFIC PROJECTS

Research at the Center focuses on four main themes of interest in sustainable finance. This section presents these themes along with an example of the latest scientific projects for each research focus.

- Responsible finance & long-term investments
- Financial technologies & digital markets
- Financial intermediaries & regulation
- Financial behaviors, welfare & market (in)efficiencies

Responsible finance & long-term investments

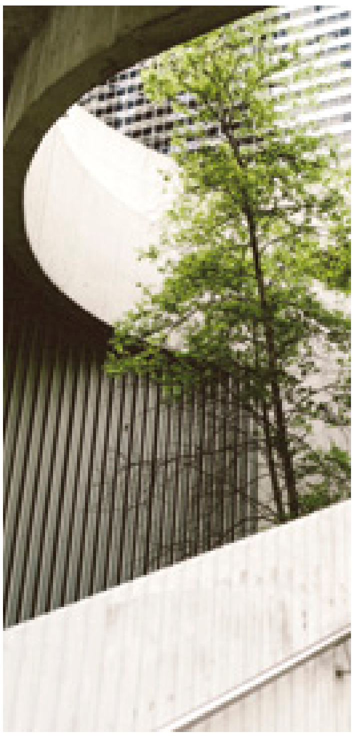
Objectives:

- Analyze whether we invest enough in long-term assets
- Evaluate immediate benefits compared to distant ones
- Measure externalities imposed by firms on society and provide incentives for economic agents to incorporate these externalities in their decisions

In addressing these objectives, research has an impact on contemporary concerns about climate change, nuclear risk, education and training, customer safety, and the welfare of employees and communities.

Program leader:

Catherine Casamatta works on corporate finance theory, venture capital, investment fund management and managerial compensation.



Zoom on a scientific project

Willingness to pay for corporate social responsibility

Sébastien Pouget *(TSE, TSM, UT1)*
Daniel Brodback & Nadja Guenster *(University of Münster)* and Ruichen Wang *(TSM)*

Are investors willing to sacrifice financial performance for the common good? This question is crucial to understand what investors expect in terms of return when they invest in socially responsible firms. Given that this return is also the cost of capital, it determines the ease with which socially responsible firms will finance their projects. This question is difficult to address empirically because expected returns are in general not observable.

"In our paper, we design an initial public-offering experiment in which various assets may be issued with an identical financial risk and return profile but with different intensity and timing of social responsibility. The expected social benefit of assets may be high or low, and the social benefit may occur when the financial payoff is good or bad. The social benefit is represented in the experiment by a donation to a charity that is realized only if the asset is issued. We measure how much subjects are willing to pay for the different assets and find that they attribute a positive value to social responsibility at an increasing rate. Moreover, when the societal benefit occurs along with a good financial performance, assets enjoy an additional price premium. Overall, this shows that investors are willing to sacrifice returns for the common good."

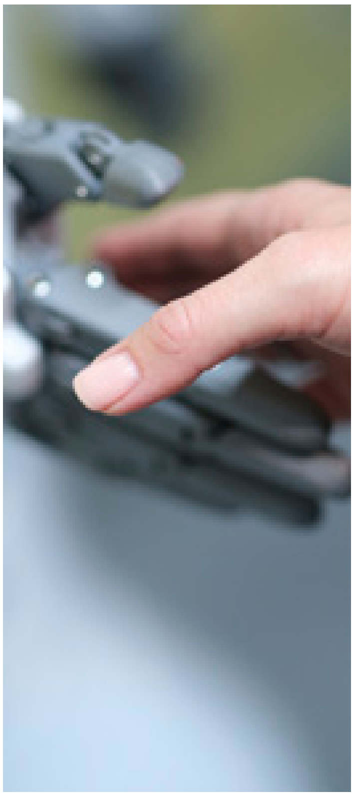
Financial technologies & digital markets

Objectives:

- Investigate the implications of key features of fintech and cryptocurrencies, including their impact on social welfare
- Study the way markets, institutions and regulations should be designed to mitigate problems such as coordination issues, information asymmetries and other market failures

Program leader:

Christophe Bisière works on market microstructure, empirical finance, experimental finance, blockchains, cryptocurrency and fintech.



Zoom on a scientific project

Augmenting investment decisions with robo-advice

Milo Bianchi *(TSE, TSM, UT1)*

Marie Brière *(Amundi, Paris Dauphine University, Université Libre de Bruxelles)*

A growing interest in automated financial advisors, often called robo-advisors, has emerged both in academia and in the industry. Yet, even if a robot may be devised to reduce transaction costs and agency conflicts, the fundamental aspect is how much investors would be willing to rely on automated recommendations: for example, when defining their portfolio allocations or when advised to rebalance their portfolio in a given direction even if tempted to do otherwise. Trust is key for financial advice, and mistrust in algorithms seems particularly severe in the context of financial services. As shown in other domains, one way to build trust is to let humans and robots interact, with the robot proposing some advice and the human as the ultimate decision-maker.

"We study the introduction of robo-advising on a large representative sample of Employee Saving Plans. Unlike many services that fully automate portfolio decisions, our robo-advisor proposes investment and rebalancing strategies, leaving investors free to follow or ignore them. We focus on the resulting human-robot interactions and show that, with the robo-service, investors increase their attention to the portfolio, their investment in the plan, and their equity exposure. They experience higher risk-adjusted returns, mostly by changing their rebalancing and staying closer to the target. We discuss how automated advice can promote financial inclusion, and how human-robot interactions can improve financial capability."

Financial intermediaries & regulation

Objectives:

- Investigate various topics related to monetary economics and aggregate liquidity, payment systems, prudential regulation, market finance and microstructure, to deepen the understanding of financial intermediation and the prevention of crises

Program leader:

Patrick Fève works on macroeconomics, international economics and applied econometrics.

Zoom on a scientific project

Monetary policy and endogenous financial crises

Fabrice Collard *(TSE, CNRS)*
Frédéric Boissay *(BIS)*, Jordi Galì *(CREI)* and Cristina Manea *(BIS)*

The effect of monetary policy on financial stability is ambivalent. On the one hand, loose monetary policy can help stave off financial crises. In response to the Covid-19 shock, for example, central banks swiftly lowered interest rates and acted as a backstop to the financial sector. These moves likely prevented a financial collapse that would otherwise have exacerbated the damage to the economy. On the other hand, empirical evidence shows that, by keeping their policy rates too low for too long, central banks may entice the financial sector to search for yield, feeding macro-financial imbalances. Loose monetary policy is thus sometimes regarded as one of the causes of the 2007-8 Great Financial Crisis. This research studies these questions within a novel macroeconomic model, in which crises may arise endogenously, after a protracted boom or in the face of adverse non-financial shocks. In this context, this project analyzes the ability of monetary policy to ensure financial stability.

“We study whether a central bank should deviate from its objective of price stability to promote financial stability. We tackle this question within a macroeconomic model augmented with capital accumulation and endogenous financial crises. We compare several monetary policy rules on interest rate, under which the central bank responds more or less forcefully to inflation and aggregate output. Our main findings are threefold. First, monetary policy affects the probability of a crisis both in the short run and in the medium run. Second, a central bank can both reduce the probability of a crisis and increase welfare by departing from strict inflation targeting and responding systematically to fluctuations in output. Third, financial crises may occur after a long period of unexpectedly loose monetary policy as the central bank abruptly reverses course.”

Financial behaviors, welfare & market (in)efficiencies

Objectives:

- Understand the capacity of financial markets and intermediaries to price assets, finance the economy and allocate risks which may be hindered by informational frictions and by human cognitive biases
- Identify the impacts of those frictions on investors' welfare and the efficiency of the financial industry. Study whether their effects are worsened or mitigated by different market arrangements

Program leader:

Milo Bianchi works on household finance, behavioral finance and corporate finance.

Zoom on a scientific project

The leverage self-delusion: Perceived wealth and cognitive sophistication

Tiziana Assenza *(TSE, TSM, UT1)*
Alberto Cardaci *(Goethe University, Frankfurt)* and Domenico Delli Gatti *(Università Cattolica del Sacro Cuore* and *CESifo Group Munich)*

Abundant theoretical and empirical studies in economics and psychology show that individuals often struggle, and frequently fail, to form a correct perception of how much they are worth in terms of wealth. The few existing explanations for this phenomenon rely on the presence of some types of "frictions", such as sticky prices and money illusion, which lead individuals to define preferences in terms of nominal magnitudes. Yet little attention has been devoted to the analysis of the role of cognitive and psychological factors in agents' (mis)perception of wealth and in turn their consumption/borrowing decisions.

"We find that, when provided with hypothetical balance sheets, individuals may form inaccurate perceptions of the value of the net worth, even if they observe its true value and the value of its assets and liabilities. Moreover, the perceived value of the net worth is, on average, larger than its true value and, for a given net worth, the magnitude of the misperception depends negatively on the size of the leverage ratio, i.e. the ratio between liabilities and assets. In exploring the role of individual characteristics, we find evidence relating the presence and magnitude of wealth misperception to low levels of individual cognitive sophistication and inattentive thinking. Finally, we also find that greater misperception predicts lower debt aversion, greater impatience and a larger Marginal Propensity to Consume (MPC) out of temporary and unexpected positive income shocks."

Scientific team

Today, more than 50 TSE researchers have an interest in sustainable finance economics.

- Ingela Alger, *CNRS, TSE*
- Stefan Ambec, *INRAE, TSE*
- Tiziana Assenza, *UT1 Capitole, TSM, TSE*
- Andrea Attar, *CNRS, TSE*
- Emmanuelle Auriol, *UT1 Capitole, TSE*
- Milo Bianchi, *UT1 Capitole, TSM, TSE*
- Christophe Bisière, *UT1 Capitole, TSM, TSE*
- Céline Bonnet, *INRAE, TSE*
- Christian Bontemps, *ENAC, UT1 Capitole, TSE*
- Matthieu Bouvard, *UT1 Capitole, TSM, TSE*
- Marie-Françoise Calmette, *UT1 Capitole, TSE*
- Catherine Casamatta, *UT1 Capitole,TSM, TSE*
- Frédéric Cherbonnier, *IEP, TSE*
- Patrick Coen, *UT1 Capitole, TSE*
- Fabrice Collard, *CNRS, TSE*
- Claude Crampes, *UT1 Capitole, TSE*
- Helmuth Cremer, *UT1 Capitole, TSE*
- Abdelaati Daouia, *UT 1 Capitole, TSE*
- Jean-Paul Décamps, *UT1 Capitole, TSE*
- Fany Declerck, *UT1 Capitole, TSM, TSE*
- Martial Dupaigne, *University of Montpellier 3, TSE*
- Patrick Fève, *TSE*
- Sébastien Gadat, *UT1 Capitole, TSE*
- Farid Gasmi, *UT1 Capitole, TSE*
- Bertrand Gobillard, *UT1 Capitole, TSE*
- Christian Gollier, *UT1 Capitole, TSE*
- Renato Gomes, *CNRS, TSE*
- Eugenia Gonzalez-Aguado, *UT1 Capitole, TSE*
- Catarina Goulão, *INRAE, TSE*
- Alexander Guembel, *UT1 Capitole, TSM, TSE*
- Ulrich Hege, *UT1 Capitole, TSE*
- Christian Hellwig, *UT1 Capitole, TSE*
- Marc Ivaldi, *EHESS, TSE*
- Doh-Shin Jeon, *UT1 Capitole, TSE*
- Bruno Jullien, *CNRS, TSE*
- Yassine Lefouili, *UT1 Capitole, TSE*
- Jean-Marie Lozachmeur, *CNRS, TSE*
- Nour Meddahi, *UT1 Capitole, TSE*
- Sophie Moinas, *UT1 Capitole, TSM, TSE*
- Sébastien Pouget, *UT1 Capitole, TSM, TSE*
- Patrick Rey, *UT1 Capitole, TSE*
- Arnaud Reynaud, *INRAE, TSE*
- Andrew Rhodes, *UT1 Capitole, TSE*
- Silvia Rossetto, *UT1 Capitole, TSM, TSE*
- François Salanié, *INRAE, TSE*
- Mohamed Saleh, *UT1 Capitole, TSE*
- Augustin Tapsoba, *UT1 Capitole, TSE*
- Emmanuel Thibault, *University of Perpignan, TSE*
- Jean Tirole, *TSE*
- Nicolas Treich, *INRAE, TSE*
- Stéphane Villeneuve, *UT1 Capitole, TSE*
- Takuro Yamashita, *UT1 Capitole, TSE*

TSE and IAST researchers also collaborate with numerous researchers in universities around the world on topics linked to sustainable finance.

- Bruno Biais, *HEC, CNRS*
- Marcel Boyer, *CIRANO*
- Roberta Dessi, *University of Cambridge*
- René Garcia, *University of Montreal*
- Jean-Charles Rochet, *University of Geneva, SFI*
- Nicolas Werquin, *Federal Reserve Bank of Chicago*

Visitors

- Maria Bigoni
  (University of Bologna)
  December 16-17
- Paul Karehnke
  (ESCP Paris)
  November 15-16
- Marco Pagano
  (University of Naples)
  October 21-22
- Daniel Metzger
  (University of Rotterdam)
  September 16-17
- Elena Asparouhova
  (University of Utah)
  September 6 - December 31
- Alexandre Chavarot
  (Coalition for Climate Resilient Investment)
  June 24
- KonradRaff *(NHH Bergen)*
  January 1 - August 31,
  October 15-19,
  November 15-16, 29-30,
  December 10-14

Postdoctoral fellows

The Center was strengthened in 2021 by the arrival of two post-docs who now work alongside our researchers involved in the FIT IN Initiative.

Sabrine Bair

Sabrine is a PhD graduate in Economics from the Centre for industrial Economics at MINES ParisTech. She has a special interest in the impact of the use of information and communication technologies in developing countries to alleviate the living conditions and empower households in rural areas, particularly in Sub-Saharan Africa.

Hakan Özyilmaz

Hakan is a PhD graduate in Economics from the University of California, Santa Barbara. His research focuses on understanding boundedly rational behavior in financial markets to inform models that bring psychological realism into economic theory and consumer protection policies.

Grants

Grants awarded by TSE for research projects related to interoperability of digital payment systems

FIT IN Initiative research grants

In February 2021, TSE issued a first call for research proposals related to interoperability of digital payment systems in low- and middle-income countries. Organized in the framework of the FIT Initiative, this external call was open to projects with a theoretical and/or empirical approach. TSE invited proposals from researchers of any affiliation, including post-doctoral researchers and PhD candidates. The FIT IN Initiative receives support from the Bill & Melinda Gates Foundation's Financial Services for the Poor program.

Selected teams and projects for 2021:

- Annan Francis *(Georgia State University)*, Datta Bikramadity *(Indian Institute of Technology, Kanpur)*, Klobudu Edem *(UT San Antonio)*: "Interoperability in Mobile Money Markets".
- Aurazo Jose *(Central Reserve Bank of Peru)*, Müller Carola *(CEMLA)*, Resendiz Raul *(CEMLA)*, Martinez Anahi *(CEMLA)*: "An interchange model for fintech in payments in emerging economies: The case of sub-acquirers in payment cards".
- Creti Anna *(Université Paris-Dauphine)*, Barry Mamadou *(Université Paris-Dauphine)*: "Financial Inclusion for Energy Access".
- Ferrouhi El Mehdi *(Ibn Tofail University)*, Kharbouch Omar *(Ibn Tofail University)*, Mounia Sliman *(Ibn Tofail University)*, Stout Nabil *(Ibn Tofail University)*: "Digital payment and financial inclusion: the case of mobile payment and mobile wallet in Morocco".
- Grzybowski Lukasz *(Telecom Paris and University of Cape Town)*, Mothobi Onkokame *(University of Botswana)* Lindlacher Valentin *(University of Munich)*: "The role of interoperability and locations of mobile money agents for financial inclusion in Sub-Saharan Africa".
- Klobodu Edem *(UT San Antonio)*, Annan Francis *(Georgia State University)*: "Distributional Effects of Interoperable Digital Financial Services: Evidence from Mobile Money".
- Li Renping *(Washington University in Saint Louis)*, Brett Green *(Washington University in Saint Louis)*, Sraer David *(UC Berkeley)*: "Digital Collateral in Consumer Credit Markets".

In 2021, three researchers involved in the activities of TSE Sustainable Finance Center received funding from the European Research Council (ERC) for ongoing research projects.

ERC "Starting grants"

- Renato GOMES: *"Competition and Regulation of Platform Markets"*

ERC "Advanced grants"

- Bruno JULLIEN: *"Information services: competition and externalities"*
- Jean TIROLE: *"Markets and their limits"*

In 2021, six TSE researchers were involved in research projects funded by the ANR. *(Projects hosted by the Jean-Jacques Laffont Foundation or the TSE-R Laboratory)*

- Céline BONNET: **DIET+** - *"Effects of diet changes on market equilibrium, value sharing, public health, environment and land use"* (ANR-17-CE21-0003)
- Matthieu BOUVARD: **FINRIS** - *"Innovation financière et gestion du risque"* (ANR-20-CE26-0010)
- Frédéric CHERBONNIER: **EDIN** - *"Economy of Disruptive Innovation"* (ANR-17-CE26-0005-01)
- Abdelaati DAOUIA: **EXTREMREG** - *"Extremal Regression with Applications to Econometrics, Environment and Finance"*
- Sébastien GADAT: **MASDOL** - *"Mathematics of Stochastic and Deterministic Optimization for Deep Learning"*
- Christian GOLLIER: **LONGTERMISM** - *"Evaluation des investissements ultra-longs"* (ANR-17-CE03-0010-01)
- Nour MEDDAHI: **COVID-METRICS** - *"Econometrics, Time Series, and Risk Management of Covid-19"*
- Sophie MOINAS: **PIMS** - *"Price formation In financial MarketS"* (ANR-16-CE26-0008-01)
- Stéphane VILLENEUVE: **PACMAN** - *"Principal-Agent, Contracts and Mean-field gAmes for eNergy"* (ANR-16-CE05-0027-04)

Prizes & Awards

TSE-Banque de France prizes in monetary economics and finance

Every two years, the Banque de France and TSE designate researchers who have developed fundamental concepts in monetary economics and finance. The aim of these prizes is to encourage research that contributes to better definition and implementation of policies conducted by central banks.

In May 2021, prizes were awarded by François Villeroy de Galhau, Sylvie Goulard (Banque de France), Jean Tirole and Christian Gollier (TSE) during a virtual conference broadcast from Paris. Research presentations by Junior prizewinners laureates **Silvana Tenreyro, Emi Nakamura, Jón Steinsson,** and Senior prizewinner **John Moore,** were followed by an engaging roundtable discussion on the theme *"Money and Liquidity in Times of Crisis"*.

Since 2007, the Banque de France and TSE have worked together as part of a long-term scientific partnership based on the exchange of ideas, information, and scientific expertise. Workshops, public seminars, and conferences have inspired joint publications and research projects by some of the finest specialists in the fields of microstructure, financial intermediation, risk, and macroeconomic analysis.

Antitrust Compliance Award

Emmanuelle Auriol, together with Erling Hjelmeng and Tina Søreide, won the Academic Award of the 2021 Antitrust Compliance Awards for her article *'Deterring corruption and cartels: In search of a coherent approach'*, published in *Concurrences* in 2017. These awards aim to contribute and promote compliance in the antitrust field.

EGRIE Awards

Congratulations to our Director who scooped two EGRIE (European Group of Risk & Insurance Economists) awards this year:

- **SCOR-Geneva Risk and Insurance Review Best Paper Award**

Christian Gollier is the 2021 laureate for his paper *"Pandemic economics: Optimal dynamic confinement under uncertainty and learning"*. The SCOR/TSE-P Award for the best paper of the year published in *The Geneva Risk and Insurance Review* is organized by the "Risk Markets and Value Creation" Chair at TSE and University of Paris-Dauphine, sponsored by SCOR and the Fondation du Risque.

- **The Harris Schlesinger Prize for Research Excellence**

Christian Gollier also picked up this award for his paper *"On the Underestimation of the Precautionary Effect in Discounting"*. This prize is dedicated to the memory of Harris Schlesinger, a founding editor of *The Geneva Papers on Risk and Insurance Theory* (now *The Geneva Risk and Insurance Review*).

More information on the EGRIE website.

Best Young Researcher in Finance and Insurance Prize

In March 2021, during an event co-organized by the Institut Louis Bachelier, the SCOR Foundation for Science awarded the 2020 Best Young Researcher in Finance and Insurance prizes to **Matthieu Bouvard**.

TSE researcher to advise French government on trade and development

In January 2021, the French Ministry for the Economy and Finance appointed **Marie-Françoise Calmette** to serve on an advisory group for the evaluation of France's aid for trade from 2009 to 2019. Marie-Françoise will draw on her expertise in international economics and the development of emerging countries.

Young Researchers in Green Finance Prize

In 2018, the Banque de France decided to create a Young Green Finance Researcher Award with the aim of promoting research in this emerging discipline. **Mathias Reynaert** was the 2021 winner.

The award ceremony took place during the "Green Finance Research Advances" academic conference co-organized by the Banque de France and the Louis Bachelier Institute, with the support of the Institute for Climate Economics (I4CE) and Finance for Tomorrow.

Publications

Policy papers

Articles in peer-reviewed journals

Working papers

Contributions to policy-oriented publications

Policy papers

"Mobile Payments and Interoperability: Insights from the Academic Literature", *December 2021.*

Within the framework of the FIT IN Initiative, TSE researchers **Milo Bianchi, Matthieu Bouvard, Renato Gomes, Andrew Rhodes** and **Vatsala Shreeti** collaborated on this policy paper, bringing together various streams of academic literature to shed light on how interoperability in mobile payments affects market outcomes and welfare.





Articles in peer-reviewed journals

- **Philippe De Donder and Stefan Ambec,** "Environmental Policy with Green Consumerism", *Journal of Environmental Economics and Management, vol. 111, December 2021*
- **Bruno Biais,** Florian Heider and Marie Hoerova, "Variation margins, fire-sales and information-constrained optimality", *The Review of Economic Studies, vol. 88, n. 6, November 2021, pp. 2654–2686*
- Laurent Miclo and **Stéphane Villeneuve,** "On the forward algorithm for stopping problems on continuous-time Markov chains", *Journal of Applied Probability, vol. 58, n. 4, 2021, pp. 1043–1063, November 2021*
- Linqun Liu and **Nicolas Treich,** "Optimality of Winner-Take-All Contests: The Role of Attitudes toward Risk", *Journal of Risk and Uncertainty, October 2021*
- **Stefan Ambec** and Jessica Coria, "The informational value of environmental taxes", *Journal of Public Economics, vol. 199, n. 104439, July 2021*
- **Ulrich Hege,** Elaine Hutson, and Elaine Laing, "Mandatory Governance Reform and Corporate Risk Management", *Journal of Corporate Finance, n. 101935, June 2021*
- Manh-Hung Nguyen, Thi Lan Anh Nguyen, Tuan Nguyen, **Arnaud Reynaud,** Michel Simioni and Viet-Ngu Hoang, "Economic analysis of choices among differing measures to manage coastal erosion in Hoi An (a UNESCO World Heritage Site)", *Contributions to Economic Analysis and Policy, vol. 70, June 2021, pp. 529–543*
- **Jean Tirole,** "Emmanuel Farhi, Economist Par Excellence", *Annual Review of Economics, vol. 13, June 2021, pp. 1–17*
- Jieying Hong, **Sophie Moinas** and **Sébastien Pouget,** "Learning in Speculative Bubbles: theory and experiments", *Journal of Economic Behavior and Organization, vol. 185, March 2021, pp. 1–26*
- **Christian Gollier,** "A general theory of risk apportionment", *Journal of Economic Theory, vol. 192, n. 105189, March 2021*
- **Nicolas Treich** and Yuting Yang, "Public safety under imperfect taxation", *Journal of Environmental Economics and Management, vol. 106, n. 102421, March 2021*
- **Patrick Fève,** Pablo Garcia Sanchez, Alban Moura and Olivier Pierrard, "Costly Default and Skewed Business Cycle", *European Economic Review, vol. 132, February 2021*
- Tiziano De Angelis, **Fabien Gensbittel** and **Stéphane Villeneuve,** "A Dynkin game on assets with incomplete information on the return", *Mathematics of Operations Research, vol. 46, n. 1, February 2021, pp. 28–60*
- Jieying Hong and **Sébastien Pouget,** "Liquidity Formation and Preopening Periods in Financial Markets", *Economica, February 2021*

- **Helmuth Cremer, Jean-Marie Lozachmeur** and Kerstin Roeder, "Household bargaining, spouses'consumption patterns and the design of commodity taxes", *Oxford Economic Papers, vol. 73, n. 1, January 2021, pp. 225–247*
- **Tiziana Assenza,** P. Heemeijer, C.H. Hommes and D. Massaro, "Managing Self-organization of Expectations through Monetary Policy: a Macro Experiment", *Journal of Monetary Economics, vol. 17, January 2021, pp. 170–186*
- **Matthieu Bouvard** and Adolfo de Motta, "Labor leverage, coordination failures, and aggregate risk", *Journal of Financial Economics, vol. 142, n. 3, 2021, pp. 1229–1252, January 2021*
- Matthew Adler, Maddalena Ferranna, **James K. Hammitt** and **Nicolas Treich,** "Fair Innings? The Utilitarian and Prioritarian Value of Risk Reduction over a Whole Lifetime", *Journal of Health Economics, vol. 75, n. 102412, January 2021*

Working papers

- **Fabrice Collard,** Frédéric Boissay, Jordi Galì and Cristina Manea, "Monetary Policy and Endogenous Financial Crises", *TSE Working Paper, n. 21-1277, December 2021*
- **Tiziana Assenza,** "The Ability to 'Distill the Truth'", *TSE Working Paper, n. 21-1280, December 2021, revised March 2022*
- **Fabrice Collard** and Omar Licandro, "The Neoclassical Model and the Welfare Costs of Selection", *TSE Working Paper, n. 21-1246, September 2021*
- **Milo Bianchi** and Marie Brière, "Augmenting Investment Decisions with Robo-Advice", *TSE Working Paper, n. 21-1251, September 2021*
- **Frédéric Cherbonnier,** David Salant and **Karine Van Der Straeten,** "Getting auctions for transportation capacity to roll", *TSE Working Paper, n. 21-1254, September 2021*
- **Frédéric Cherbonnier,** "Optimal insurance for time-inconsistent agents", *TSE Working Paper, n. 21-1256, September 2021*
- **Milo Bianchi** and Henri Luomaranta, "Agency Costs in Small Firms", *TSE Working Paper, n. 21-1252, August 2021*
- **Catarina Goulão** and Agustín Pérez-Barahona, "Health capital norms and intergenerational transmission of non-communicable chronic diseases", *TSE Working Paper, n. 21-1236, July 2021*
- Claire Borsenberger, **Helmuth Cremer,** Denis Joram, **Jean-Marie Lozachmeur** and **Estelle Malavolti,** "E-commerce, parcel delivery and environmental policy", *TSE Working Paper, n. 21-1230, July 2021*
- **Jean-Paul Décamps, Fabien Gensbittel** and **Thomas Mariotti,** "Investment Timing and Technological Breakthroughs", *TSE Working Paper, n. 21-1222, June 2021, revised July 2021*
- **Christian Hellwig,** "Static and Dynamic Mirrleesian Taxation with Non-separable Preferences: A Unified Approach", *TSE Working Paper, n. 21-1224, June 2021*
- Andrea Attar, Eloisa Campioni, **Thomas Mariotti** and Alessandro Pavan, "Keeping the Agents in the Dark: Private Disclosures in Competing Mechanisms", *TSE Working Paper, n. 21-1227, June 2021, revised December 2021*
- **Sylvain Chabé-Ferret, Arnaud Reynaud** and Eva Tène, "Water Quality, Policy Diffusion Effects and Farmers' Behavior", *TSE Working Paper, n. 21-1229, June 2021*
- **Patrick Coen,** "Information Loss over the Business Cycle", *TSE Working Paper, n. 21-1220, May 2021*
- **Helmuth Cremer** and **Jean-Marie Lozachmeur,** "Coinsurance vs. copayments: reimbursement rules for a monopolistic medical product with competitive health insurers", *TSE Working Paper, n. 21-1223, May 2021*
- Francesca Barigozzi, **Helmuth Cremer** and **Jean-Marie Lozachmeur,** "Gender wage and longevity gaps and the design of retirement systems", *TSE Working Paper, n. 21-1217, April 2021*
- **Milo Bianchi,** Rose-Anne Dana and Elyès Jouini, "Equilibrium CEO Contract with Belief Heterogeneity", *TSE Working Paper, n. 21-1253, April 2021*
- **Christian Gollier,** "The welfare cost of vaccine misallocation, delays and nationalism", *Covid Economics, n. 74, March 2021, pp. 1–24*

- **Tiziana Assenza,** Alberto Cardaci and Dominico Delli Gatti, "The Leverage Self-Delusion: Perceived Wealth and Cognitive Sophistication", *TSE Working Paper, n. 19-1055, February 2021, revised February 2021*
- **James K. Hammitt** and **Nicolas Treich,** "Fatality Risk Regulation", *TSE Working Paper, n. 21-1177, January 2021*
- Marie Brière, **Sébastien Pouget** and Loredana Ureche-Rangau, "Les votes des investisseurs institutionnels sur les externalités produites par les entreprises : Le cas de deux investisseurs emblématiques", *TSE Working Paper, n. 21-1178, January 2021*
- **Milo Bianchi,** Rose-Anne Dana and Elyès Jouini, "Shareholder Heterogeneity, Asymmetric Information, and the Equilibrium Manager", *TSE Working Paper, n. 21-1181, January 2021*
- Jessica Martin and **Stéphane Villeneuve,** "A Class of Explicit optimal contracts in the face of shutdown", *TSE Working Paper, n. 21-1183, January 2021*

Contributions to policy-oriented publications

Blanchard-Tirole report: France must face the future

Olivier Blanchard & Jean Tirole – *June 23*

As the pandemic spread around the world last year, French President Emmanuel Macron asked former IMF chief economist Olivier Blanchard and TSE's Jean Tirole to preside over an independent commission on the challenges for post-Covid society. The three-part report they delivered to the Elysée focused on global warming, inequality, and demographic change.


RdC

Scientific events

Sustainable Finance conference

Finance seminars

Macroeconomics seminars

Financial Inclusion through Interoperability workshops

SCOR-TSE workshop: Behavioral insurance economics

Sustainable Finance conference

December 2-3 2021, online

The **2nd Sustainable Finance Conference**, which also incorporated the inaugural conference of the FIT IN initiative, was held online on December 2 and 3. Talks and discussions ranged from the role of responsible investors and shareholder engagement, to green monetary policy, mobile money in Africa, and the fintech revolution.

Find more information in the Highlights section of this report and on the conference webpage.

Finance seminars

The Finance Seminar is a weekly workshop that gathers TSE researchers interested in financial economics and leading guest speakers from academic institutions around the world. It features theoretical and empirical work related to corporate finance, asset pricing and financial intermediation.

- December 17 - **Maria Bigoni** *(University of Bologna)*, "Curbing excessive financial risk in the economy: Reputation is not enough"
- December 10 - **Mark Egan** *(Harvard Business School)*, "What Drives Variation in Investor Portfolios? Evidence from Retirement Plans"
- November 9 - **Adrien D'Avernas** *(Stockholm School of Economics)*, "Bonds vs. Equities: Information for Investment"
- October 22 - **Marco Pagano** *(University of Naples Federico II)*, "Loan Guarantees, Bank Lending and Credit Risk Reallocation: Empirical banking"
- October 15 - **Filip Mrowiec** *(TSE)*, "The Role of Opacity in Non-exclusive, Secured Lending"
- October 8 - **Yifei Zhang** *(TSE)*, "Corporate Venture Capital and Firm Scope"
- October 1 - **Elena Asparouhova** *(University of Utah)*, "Price Formation in Multiple Simultaneous Continuous Double Auctions, with Implications for Asset Pricing"
- September 21 - **Saki Bigio** *(UCLA)*, "Scrambling for Dollars: International Liquidity, Banks and Exchange Rates"
- September 17 - **Daniel Metzger** *(Rotterdam School of Management)*, "The Sustainability Wage Gap"
- June 14 - **Mina Lee** *(University of Washington - Saint Louis)*, "Passive Investing and Price Efficiency"
- June 7 - **Song Ma** *(Yale University)*, "Obsolete Firms"
- May 31 - **Beatriz Mariano** *(Humboldt University Berlin)*, "Are M&As Good for Directors' Careers?"
- May 17 - **Ulf Von Lilienfeld-Toal** *(University of Luxembourg)*, "Housing Affordability and Transaction Tax Subsidies"
- May 10 - **Jean Edouard Colliard** *(HEC - Paris)*, "Financial Restructuring and Resolution of Banks"
- May 3 - **Elise Gourier** *(ESSEC Business School)*, "Capital Commitment"
- April 12 - **Ansgar Walther** *(Imperial College London)*, "Prudential Policy with Distorted Beliefs"
- March 15 - **Milo Bianchi** *(TSE, TSM, UT1)*, "Robo-Advising for Small Investors"
- March 8 - **Theodosios Dimopoulos** *(University of Lausanne)*, "Self-Inflicted Debt Crises"

Macroeconomics seminars

- December 14 - **Andrew Caplin** *(New York University)*, “Layoffs, quits, and subjective income risk over the life cycle”
- December 7 - **Corina Boar** *(New York University)*, “Occupational Choice and the Intergenerational Mobility of Welfare”
- November 30 - **Chris Roth** *(University of Cologne)*, “Inflation Narratives”
- November 23 - **Mathieu Taschereau-Dumouchel** *(Cornell University)*, “Endogenous Production Networks under Uncertainty”
- November 9 - **Adrien D’Avernas** *(Stockholm School of Economics)*, “Bonds vs. Equities: Information for Investment”
- October 26 - **Luca Fornaro** *(CREI - Centre de Recerca en Economia)*, “Monetary Policy in the Age of Automation”
- October 12 - **Sebnem Kalemli-Ozcan** *(University of Maryland)*, “Risk-taking and Monetary Policy Transmission: Evidence from Loans to SMES and Large Firms”
- October 5 - **Ilse Lindenlaub** *(Yale University)*, “Marriage Market and Labor Market Sorting”
- September 28 - **Stéphanie Schmitt-Grohé** *(Columbia University)*, “Optimal Bank Reserve Remuneration and Optimal Capital Control Policy”
- September 21 - **Saki Bigio** *(UCLA)*, “Scrambling for Dollars: International Liquidity, Banks and Exchange Rates”
- September 14 - **Juan Rubio-Ramirez** *(Emory University)*, “Dividend Momentum and Stock Return Predictability: A Bayesian Approach”
- June 8 - **Olivier Wang** *(NYU)*, “Let the Worst One Fail: A Credible Solution to the Too-Big-To-Fail Conundrum”
- June 1 - **Philipp Kircher** *(European University Institute), “An economic model of the Covid-19 pandemic with young and old agents: Behavior, testing and policies “*
- May 18 - **Andreas Fuster** *(Swiss National Bank)*, “Diverse Policy Committees Can Reach Underrepresented Groups”
- May 11 - **Florin Bilbiie** *(University of Lausanne)*, “Monetary Policy and Heterogeneity: An Analytical Framework”
- May 4 - **Mark Aguiar** *(Princeton University)*, “Micro Risks and Pareto Improving Policies with Low Interest Rates”
- March 23 - **Renato Faccini** *(Danmarks Nationalbank)*, “Bad Jobs and Low Inflation”
- March 9 - **Anmol Bhandari** *(University of Minnesota)*, “Managing Public Portfolios”
- March 2 - **Jordi Galí** *(CREI – Centre de Recerca en Economia)*, “Should the ECB Adjust its Strategy in the Face of a Lower R*?”

Financial Inclusion Through Interoperability workshops

In April and May, TSE organized a series of workshops on mobile and digital financial services. These workshops are part of the FIT IN Initiative which was launched by TSE in 2020 with support from the Bill & Melinda Gates Foundation. The initiative aims to catalyze new research into the design and regulation of interoperable digital financial services systems in low- and middle-income countries.

May 7

- **Shirley Mburu** *(Senior Project Implementation Specialist, BFA Global)* “Interoperability in instant payments review”
- **Carlos Serrano** *(Chief Economist, BBVA Mexico)* “Mobile money and digital financial services”
- **Shalini Unnikrishnan** *(Global Lead for Societal Impact in the Consumer and Social Impact practices, Boston Consulting Group)* “CICO Agents Interoperability”

April 16

- **William Cook** *(Financial Sector Specialist, CGAP, Consultative Group to Assist the Poor)* “Building Faster Better: A Guide to Inclusive Instant Payment Systems”
- **Maha Bahou** *(CEO, JoPACC, Jordan Payments & Clearing Company)* “The Economics of Interoperability”
- **Hennie Bester** *(CENFRI, Centre for Financial Regulation and Inclusion)* “Mobile Money Usage”

April 2

- **Harish Natarajan** *(Lead Financial Sector Specialist on Payments and Market Infrastructures, World Bank)* "Ongoing Innovations in Payments and Implications for Interoperability and Competition"
- **Cédric Lemaire** *(Head of Orange Money Business and Digital for Middle East and Africa, Orange)* "Financial Digitization with (and of) Orange Money"
- **Raúl Morales Resendiz** *(Financial Markets and Infrastructures Manager, CEMLA, Association of Central Banks of Latin America and the Caribbean)* "Payments Interoperability and Inclusion in Developing Payment Systems"

SCOR-TSE workshop: Behavioral insurance economics

April 15, online

Insurance decisions provide fertile ground for identifying the existence and consequences of human behavioral limitations. They involve risk, uncertainty, and complexity as well as death-related, long-term and passive decisions. In a workshop organized by the "Risk Markets and Value Creation" Chair, which receives the support from the SCOR Corporate Foundation for Science, TSE researchers presented and discussed a number of research papers using different methods (e.g., theory, experiments, econometrics) and interdisciplinary research.


Saving the Common Good Summit
Challenges
Le Sommet
"Sauver le Bien commun"

Outreach

Common Good Summit

Contributions to other outreach events

Center's newsletters

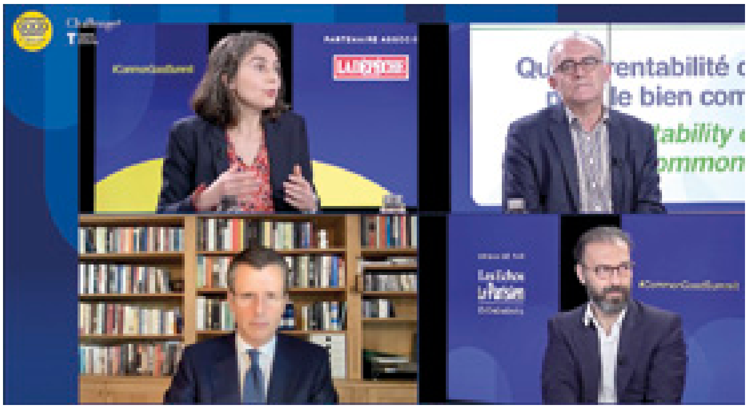
Press articles & media

Common Good Summit

COMMON GOOD SUMMIT
May 27-28, 2021

The first "Common Good Summit" organized by TSE and *Challenges* business magazine was a unique opportunity to see six Nobel laureates (Abhijit Banerjee, Angus Deaton, Esther Duflo, Bengt Holmström, Amartya Sen and Jean Tirole) exchange with international economic leaders, top executives and academics from the world's major universities on regulating capitalism and helping the notion of the common good to survive the Covid-19 pandemic. Two stimulating sessions were devoted to finance.

Financing the green transition



As the world is getting warmer, financial institutions and companies have to take action to anticipate the impact of global warming and its demands on the future economy. BNPParibas CEO **Jean-Laurent Bonnafé**, TSE's **Catherine Casamatta,** White & Case partner **Saam Golshani** and BlackRock vice chairman **Philipp Hildebrand** discussed the prospects for sustainable finance**.**

Industries are fast changing their approach to sustainability, explained BlackRock's Philipp Hildebrand: *"No company can ignore the risks of unsustainable investments. Beyond the moral issues, the current choice of companies is to have a long-term vision and to aim for future low-cost financing that will only be available if they have undertaken an ecological transition."* This sentiment was echoed by BNP Paribas CEO, Jean-Laurent Bonnafé: *"A company that does not adapt will be a player that will leave the economy in 10 years and will not be able to be supported, because it will no longer be able to repay its loans."*

Green bonds are getting hot

"Companies that propose more virtuous visions can obtain financing at a lower cost today

In the new financial ecosystem, sustainability pays. *"Banks have swiftly adapted in the past 10 years,"* said Jean-Laurent Bonnafé. *"We now look at the amount of cashflow that companies provide for the ecological transition. We are a world leader in green bonds and we see that investors are willing to invest in projects that are socially beneficial, despite the lower return on investment. Companies that propose more virtuous visions can concretely obtain financing at a lower cost today. Investors are increasingly asking for a new approach, which is to invest in projects that make sense".* Philipp Hildebrand added that this new interest for green bonds is no fad: *"We already have 30% of sustainable investments, but this is only the beginning of this massive reallocation. Over the next few decades we are facing the biggest economic transformation in history. We have to be aware of the magnitude of the change. We are not in a green bubble at all; on the contrary, this is just the beginning. We are at a turning point similar to the one we experienced after the 2008 financial crisis."*

Sustainability standards

To enforce such a profound change in the way companies are valued, TSE's Catherine Casamatta insisted the world needed new indicators to track the sustainability of economic actors: *"To evaluate the impact of companies, we must first be able to compare their balance sheets and their actions, which is currently very complicated as we do not have a standard for communicating social performance results. Rating agencies' systems are very different from one agency to another. Fortunately, the European Union has recently launched a procedure to standardize the situation."* Philipp Hildebrand added: *"To activate the*

To activate the capital needed for the ecological transition, the private sector must be able to base itself on visible international standards

capital needed for the ecological transition, the private sector must be able to base itself on visible international standards, and the comparison with the global accounting standards that have been put in place is perfectly appropriate. We must converge towards standardization quickly, especially on climate, otherwise it will be complicated to direct capital."

When will these new standards be available to governments, agencies, and banks? The panelists agreed it would take time but Philipp Hildebrand expressed hope that information technology and digitization could speed up the process. Saam Golshani was skeptical about the prospect of a quick turnaround: *"It takes at least 10 years for standards to catch up with economic reality, so it's realistic to expect these new tools within the next decade."*

Cancelling France's debt would be a mistake

Concluding the Summit, **Olivier Blanchard** (Peterson Institute for International Economics), **Hélène Rey** (London School of Economics), and **Jean Tirole** (TSE) exchanged ideas about the future of debt and its sustainability. Here we feature some of the highlights from their discussion.

The three panelists agreed that the current level of debt is not worrying and that there are many good reasons to take on debt. *"We are living in a very special environment with negative real interest rates, which allows us to increase debt, if needed, without problem,"* said Olivier Blanchard. *"This sharp drop in rates is linked to excess savings worldwide and to the demand for safe assets such as government bonds. Governments have the advantage of having to pay very low or even negative interest on their debt, which puts them in an extremely favorable situation."*

As a result of Joe Biden's stimulus package, there is an excess of demand in the United States and therefore a risk of inflation and rising interest rates

In this context, he added, the focus must be on government spending. *"While interest rates are low, there is limited scope for monetary policy. So it is up to fiscal policy to do the job. Without public spending to get the economy moving again, there is no salvation."* Olivier suggested that fiscal support should be kept open until full employment is reached. But he sees warning signs across the Atlantic: *"As a result of Joe Biden's stimulus package, there is an excess of demand in the United States and therefore a risk of inflation and rising interest rates. But I also think there's a limit to that risk and that it's very limited to the US."*

Assessing the right level of debt is very difficult, noted Jean Tirole, as many parameters have to be taken into account. *"For some countries, a debt of 40% of GDP may be excessive, while others can bear a burden of*

In France we lack an independent institution which helps guarantee a sustainable debt- to-GDP trajectory for the medium to long run

200%. For example, it depends on who holds the debt: Japanese debt does not scare investors because it is mostly held by Japanese citizens and banks. Another important parameter is the growth rate: If it exceeds the interest rate, it becomes easy to pay back the debt because it mechanically shrinks in relative terms over time. Debt denomination and maturity, and room for manoeuver in the fiscal space are other important factors."

Hélène Rey reminded viewers not to be overly pessimistic: *"While debt has a bad reputation, it is not a bad thing in itself, because debt is what allows us to share the burden of crises across several generations."* The London Business School professor stressed that it is necessary to spend in a crisis but also to stabilize the trajectory of the debt-to-GDP when the economy is doing well. *"This is what guarantees our future ability to borrow. It does not necessarily mean paying off the debt; it can be rolled over and growth can decrease the debt-to-GDP provided spending is under control. But this is typically where we do not perform well in France: we are not efficient in decreasing spending and freeing up margins of manoeuvre in periods of economic stability. Part of the issue in France is that we lack an independent institution which helps guarantee a sustainable debt to GDP trajectory for the medium to long run and we miss a robust democratic debate on costs and benefits of public spending and priorities. There is a lack of transparency, clarity and not enough engagement of the parliament based on sound analysis when we debate public finances."*

When we have a plan for future generations, whether for education or to fight global warming, we can go into debt because we are using today's money for tomorrow

Olivier agreed that long-term planning is worth financing through debt: *"When we have a plan for future generations, whether it is for education or to fight global warming, we can go into debt because we are using today's money for tomorrow."*

All three panelists dismissed the "radical" possibility of a cancellation of national debt. *"There is no reason at present to think about cancelling the debt, it is sustainable,"* said Olivier. *"When we talk about cancelling debt, we are talking about two options. The first is the cancellation of the entire debt, which would lead to the bankruptcy of many economic actors, which would be catastrophic. The other version is a cancellation of the debt held by the European Bank or the Bank of France, except that this type of cancellation would have no effect since it would only be an accounting operation with no effect on the French economy."*

Jean added that the idea of debt cancellation is motivated by incorrect beliefs: *"It would be detrimental, for the holders of the debt, but also for the country which would lose investor trust and be forced to immediately balance its budget, even though it has not been able to do so for the past 50 years."*

Contributions to other outreach events

"Avenir Commun Durable" Chair at Collège de France

December 9

Christian Gollier is a visiting professor on the annual **"Avenir Commun Durable"** Chair at Collège de France. On December 9, he gave an opening lecture on the climate challenge, ***"Entre fin du mois et fin du monde : économie de nos responsabilités envers l'humanité"***. The chair was created as part of an eponymous initiative launched in 2021 by the professors of the Collège de France. Dedicated to the challenges of the environmental and energy transition, it invites international experts to highlight current research in this field every year.

All lectures and seminars given by Christian Gollier are available in French on the Collège de France website.

CEPR Conference on Climate Change & Sustainable Finance

November 22-23, online

This two-day conference jointly organized by the CEPR Climate Change RPN and Sustainable Finance RPN was held online on November 22-23. **Christian Gollier** introduced the first session on *"Financial risks and opportunities stemming from climate change"*. TSE's **Sébastien Pouget** also presented his research during this event.

37th Symposium on Money, Banking and Finance

June 17-18, online

Banque de France, LEO, GDRE, Banque de France's Foundation, Dauphine University-PSL and Panthéon Sorbonne Paris I University organized a joint meeting on Money, Banking and Finance. TSE Director **Christian Gollier** participated in a panel session entitled ***"Epidemiology and the economy: Forecasting issues"*** with Josselin Garnier (Polytechnique) and Xavier Timbeau (Observatoire Français des Conjonctures Economiques).

Financial Risks International Forum: FinTechs & Covid-19

March 25, online

TSE director **Christian Gollier** was a guest speaker at the 2021 Financial Risks International Forum, organized by the Institut Louis Bachelier, in cooperation with the SCOR Fondation du Risque, the Europlace Institute of Finance, and the Louis Bachelier "Finance and Sustainable Growth" Laboratory. This forum focused on two themes: ***"FinTechs"*** and ***"Covid-19: Learning from a Pandemic Crisis?"***.

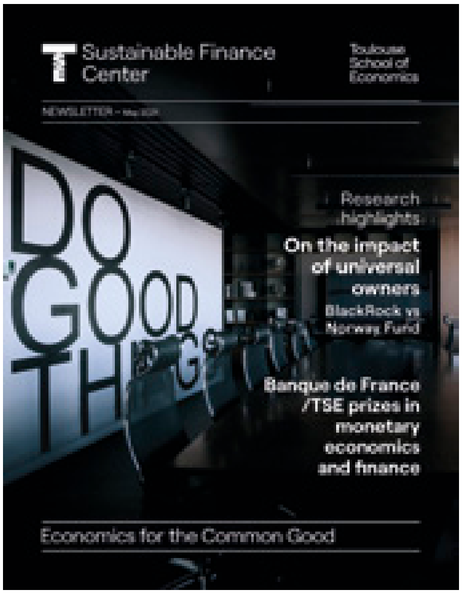
AXA Conference: Perspectives for the Economy and Responsible Investment in 2021

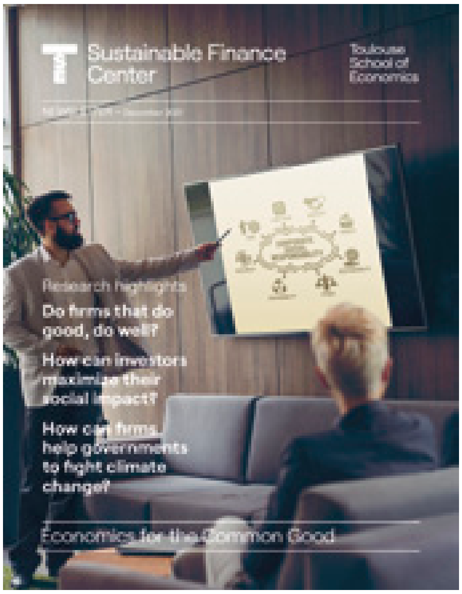
January 6, online

At a January conference dedicated to responsible investment and macroeconomic perspectives, AXA Investment Managers welcomed **Christian Gollier** to talk about the challenges facing French investors in 2021. The TSE director gave an opening speech before taking part in a roundtable discussion on ***"The world after Covid-19"***. It was moderated by Gilles Moëc, Chief Economist of the AXA Group and Head of Research at AXA IM, who also gave a presentation on the macroeconomic perspectives.

Center's newsletters

Read our two newsletters published in 2021





Press articles & media

- Budget de l'État : "La vraie question, c'est l'efficacité des dépenses publiques", **Emmanuelle Auriol,** *Ouest France, September 22*
- Sur les défis fondamentaux, les Français ont la culotte à l'envers, **Christian Gollier,** *Les Échos, July 9*
- Podcast : comment affronter ces grands défis économiques ?, **Jean Tirole,** *Challenges, July 7*
- Les ressorts du capitalisme de marché, **Christian Gollier,** *Le Nouvel Économiste, July 7*
- Jean Tirole - économiste et tragédien, *Arte, June 28*
- 24H Pujadas, les conseils d'un Prix Nobel, **Jean Tirole,** *LCI, June 24*
- La Matinale, Interview **Olivier Blanchard & Jean Tirole,** *France Inter, June 24*
- Tirole-Blanchard : comment s'attaquer aux défis du futur, **Olivier Blanchard & Jean Tirole,** *Les Echos, June 23*
- Quelles réformes pour l'économie de demain ? Entretien avec **Olivier Blanchard & Jean Tirole,** *L'Express, June 23*
- Il est essentiel de remédier aux nombreuses défaillances de l'économie de marché, **Jean Tirole,** *Challenges, May 27*
- Le bitcoin chute, les Bourses accusent le coup, **Matthieu Bouvard,** *Le Figaro, May 19*
- Les cryptomonnaies désormais considérées comme une valeur refuge par certaines entreprises, **Catherine Casamatta,** *Le Monde, April 29*
- La France a-t-elle peur du risque ?, **Christian Gollier,** *Le Figaro, April 13*
- Et si la France avait appliqué la stratégie Zéro Covid…, **Christian Gollier,** *Mediapart, April 1*
- Nouveau tour de vis, une défaite pour Macron ?, **Christian Gollier,** *Europe 1 Radio, March 31*
- Le bitcoin : son origine, son potentiel, ses risques en sept questions, **Matthieu Bouvard,** *Le Figaro, March 8*
- Stop and go ou Zéro Covid : que disent les économistes ?, **Christian Gollier,** *round table on France Culture, March 1*
- Bitcoin goldrush sparks fears of speculative bubble, **Mathieu Bouvard,** *AFP, February 19*
- Quand le Bitcoin sort de la clandestinité, **Catherine Casamatta,** *Le Point, February 4*

- Pour l'Occitanie, le cumul crise et Brexit est préoccupant, **Fany Declerck,** *Touléco, February 3*
- Peut-on sauver l'industrie française ? Les six questions que l'on doit se poser, **Emmanuelle Auriol,** *Ouest-France, February 2*
- Cryptomonnaie : que se passe-t-il avec le bitcoin ?, **Matthieu Bouvard,** *Les Numériques, January 17*
- Va-t-on bientôt pouvoir réaliser nos achats du quotidien en bitcoins ?, **Mathieu Bouvard,** *20Minutes, January 15*
- Bitcoin : 5 minutes pour comprendre la flambée du cours, qui bat record sur record, **Catherine Casamatta,** *Le Parisien - Aujourd'hui en France, January 8*
- Prix FIR-PRI "Finance & Développement Durable" : Un excellent millésime 2020, **Catherine Casamatta,** *Option Finance, January 20*
- Entre santé publique et économie, quel est le bon dosage ?, **Frédéric Cherbonnier,** *Les Échos, December 24*

Partnerships

New and renewed partnerships

New partnership with Getlink, the Eurotunnel operator

TSE was delighted to begin a new partnership with Getlink in March 2021. Like many companies, Getlink is redefining its policies to include environmental, social, and governance (ESG) criteria in its corporate strategy and performance evaluation, and it is in constant exchange with institutional investors about its ESG policies. As for 2021, Getlink supported research focused on three main research themes:

- Understanding the links between ESG issues and companies' policies and economic/financial performance
- Understanding the motivations of companies and their decision-makers to integrate ESG criteria in their investment decisions
- Defining the roles of governments and other stakeholders in determining ESG policies

The TSE lead researcher for this partnership is Ulrich Hege. The other TSE members involved are Catherine Casamatta, Sophie Moinas, Sébastien Pouget and Silvia Rossetto.

New partnership with Danone

We were pleased to start a new partnership with Danone in 2021. The aim of this new two-year partnership is to examine issues related to Corporate Social Responsibility (CSR): quantifying a company's societal impact, as well as assessing how to extend the classic tools and instruments used in economic and financial decision-making. The research team working on this project is composed of Céline Bonnet, Sophie Moinas, Sébastien Pouget and Nicolas Treich.

Renewed partnership with the Banque centrale du Luxembourg

Our partnership with the Banque centrale du Luxembourg (BCL), which has been a supporter of research at TSE since 2015, has been renewed for another five years. This renewal is a natural result of the strong existing ties between TSE and BCL researchers who have already produced joint scientific publications. The objective of this partnership is to develop ambitious research and scientific activities in macroeconomics, monetary economics, and the economics of financial systems. With the support of BCL, TSE researchers plan to develop their research work on macro-prudential policies, and on the challenges raised by the development of e-money, virtual currencies, and central bank digital currencies. Numerous joint working sessions of mutual benefit to TSE and BCL researchers will continue to be organized in Toulouse and Luxembourg as part of this international collaboration.

BANQUE CENTRALE DU LUXEMBOURG
EUROSYSTÈME

Current partners

We are highly grateful to all our partners and donors for their support.

Main donors

BANQUE CENTRALE DU LUXEMBOURG
EUROSYSTÈME

BANQUE DE FRANCE
EUROSYSTÈME

Donors

BAILLIE GIFFORD

SCOR FOUNDATION FOR SCIENCE

Association Finance Durable et Investissement Responsable

ANT FINANCIAL

GETLINK

Luohan Academy

CAUSALITY LINK

FIT IN Initiative
with the support of the Bill & Melinda Gates Foundation

Research project sponsors

- AFD
- BBVA
- Danone

Join forces

Connecting our research to real-world issues

Philanthropic support and research partnerships have played a significant role in the creation and development of TSE Sustainable Finance Center. Today, more than ever, the long-term support of our public and private partners is essential to promote research on sustainable finance.

TSE Sustainable Finance Center is designed to encourage the participation of a wide range of partners, including corporations, institutions, individuals and charitable organizations, from France and around the world, in order to meet the growing demand for analysis and collaboration on sustainable finance topics. Working alongside practitioners, TSE researchers aim to develop targeted research projects directly connected to key social concerns and economic actors, as well as outreach initiatives that anchor TSE scientific expertise in the public debate.

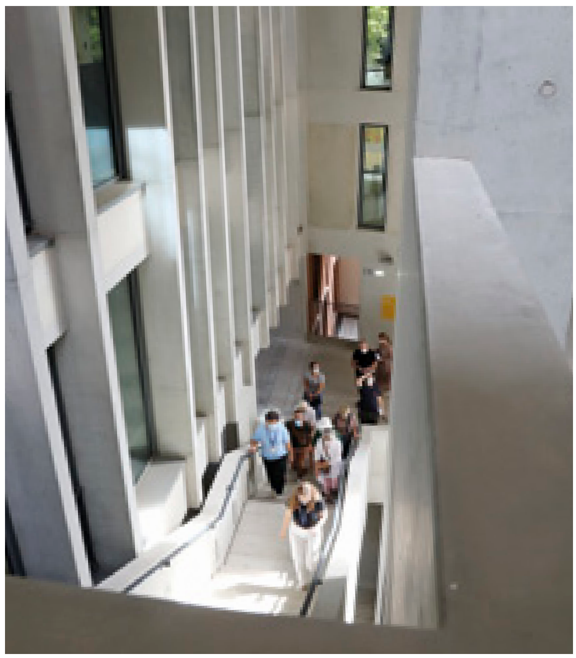
> ***By joining the community of partners, you will help us achieve our ambitious scientific goals and encourage the emergence of a leading research center in Europe on sustainable finance.***

You can support research undertaken with a specific scientific project and/or contribute to a fund dedicated to ensuring the long-term success of the Center. Such funding could help us secure existing posts and endow new ones. We are also looking for funding to create new research projects and visiting programs, and to offer additional research grants and scholarships. In addition, we value the provision of databases our researchers can work on. Finally, we enthusiastically welcome financial support for projects with a multidisciplinary approach.

Donations made to TSE through the Jean-Jacques Laffont – TSE Foundation, through TSE-Partnership Foundation (TSE-P) or through American Friends of TSE, provide tax benefits to the donor.


Eve Séjalon

If you would like to join us, please contact **Eve Séjalon**, Head of Research Partnerships and Centers at *partnership@tse-fr.eu*



Some research programs may be at the crossroads of several themes. Take a look at our other thematic centers:

- **TSE Competition Policy & Regulation Center**
- **TSE Digital Center**
- **TSE Energy & Climate Center**
- **TSE Health Center**
- **TSE Infrastructure & Network Center**

Connecting research and education

Advanced master's program

Executive Education

Although they take place outside the framework of TSE Sustainable Finance Center, we find it interesting to highlight educational activities in the field of sustainable finance carried out by other entities within TSE's big tent.

TSE faculty involved in the research activities of TSE Sustainable Finance Center are also often committed to transferring cutting-edge knowledge to the students in an initial or continuing education program.

Master's program in finance

A joint program with the Toulouse School of Management (TSM)

TSE researchers lead courses in three specializations of this master's program, providing students with the advanced economic, banking, and financial knowledge required for client relations in small or large companies

M2 - Financial Markets and Risk Evaluation

- Program director: ***Sophie Moinas***

The 2008 financial crisis showed the dangers of blind applications of valuation and risk management models. Students on the "Financial Markets and Risk Evaluation" master's program benefit from the theoretical insights and instruction of world-class academics on financial markets. Practical insights are also offered to ensure that students are accustomed to the functioning and vocabulary of financial markets, the strategies of investors, and the pricing of financial assets, with a particular emphasis on risk measurement and evaluation.

M2 - Corporate Finance

- Program director: ***Catherine Casamatta***

This master's program aims to provide students with the skills to analyse and manage corporate finances. The main areas of study include valuing firms and projects, managing investments and risk, planning and managing financial strategies, managing interest and exchange rate exposures, and corporate accounting and audit. On completion of this course, students will have acquired a broad financial expertise including a good grasp of how markets operate, as well as a more specific understanding of banking, accounting, strategy, and IT.

M2 - Finance and IT (FIT)

- Program directors: ***Silvia Rossetto, followed by Christophe Bisière***

This master's program provides skills in both finance and financial IT. It aims to produce multi-skilled finance engineers with strong technical knowledge. The program includes theoretical and practical courses in corporate and market finance as well as interdisciplinary courses in IT decisional technology and tools (Business Intelligence). By the end of their course, students will have a strong finance expertise with a good knowledge of the main decisional tools in finance. This will allow students to access jobs in many different areas, including interdisciplinary jobs such as business consultant in finance or IT finance project manager.

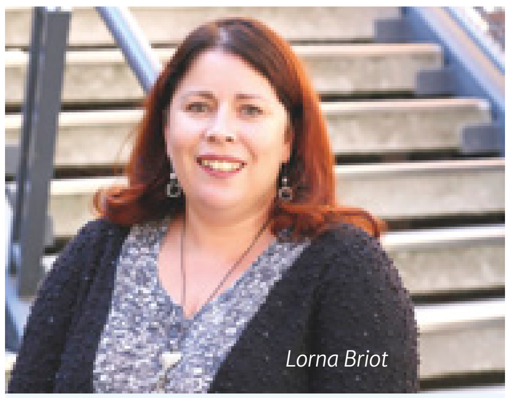
Business talks

Throughout the academic year, TSE's Career Service organizes a series of "Business Talks" open to TSE students.

These events welcome a range of speakers from CEOs, executives and alumni. These talks aim to develop their economic culture through fascinating case studies and to encourage them to reflect on their career plan.

Many thanks to our speakers mentioned below for sharing their experiences across a wide range of financial matters in 2021.

- September 16 - Sylvie Goulard, Deputy Governor of the Banque de France, presented a conference on ***"How can central banks contribute to green finance?"***
- February 25 - Léa Deleris, Head of RISK Artificial Intelligence Research at BNP Paribas, presented a conference on ***"Data Science in a Financial Institution"***. She asked: *"What does it mean in practice and what are the key challenges? A day-to-day life and ecosystem of a data science team within a large financial institutions."*



Lorna Briot

Preparing our students for their future careers and strengthening our relationships with business and policy communities is of primary importance to TSE. The Careers Team offers a wide range of services to both students and recruiters.For more information, please contact **Lorna Briot**, Head of Careers at *careers@tse-fr.eu*

Executive Education

A great opportunity to develop projects and ideas, interacting with leading economic thinkers.

TSE Executive Education adapts to the interests and needs of practitioners and businesses by offering a variety of training program formats. Our programs are delivered in both open online and face-to-face sessions, as well as in customized sessions, working closely with organizations to provide a unique learning experience.

Carefully designed courses, based on the latest economic research and taught by internationally renowned professors, show how using economic tools can help to address critical problems.

Some of our recent courses:

- The rationale for Corporate Social Responsibility (CSR)
- Typologies of CSR strategies
- Role of the financial industry in sustainability
- Measuring societal impacts (environmental, social, and governance indicators, scope…)
- Impact of responsible investment strategies on financial performance
- Corporate engagement by financial institutions

Next open enrollment course on June 30:
Corporate Climate Action *(online)*

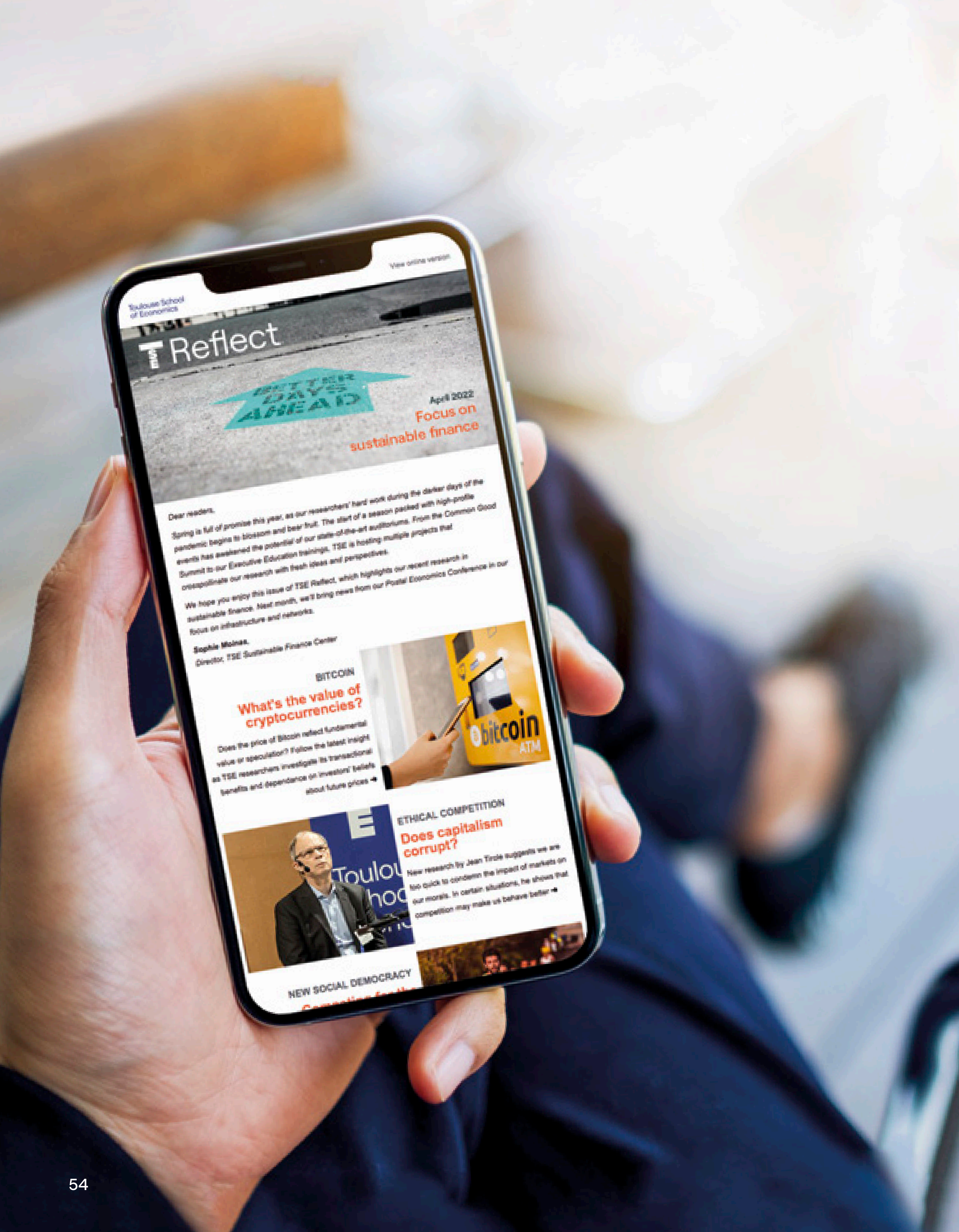
Our faculty will discuss the main reasons why firms implement climate-related policies, present the tools used to implement these policies, and infer the implications for economic and financial performance.

Find out more on our website.

Priyanka Talim

Our programs are designed to deliver excellence through a practical and innovative experience. If you would like to conduct a brainstorming session to identify your organization's needs and develop a customized course, please contact: **Priyanka Talim**, Head of Innovation at exed@tse-fr.eu

TSE Executive Education


View online version
Toulouse School of Economics
Reflect
BETTER DAYS AHEAD
April 2022
Focus on sustainable finance
Dear readers,
Spring is full of promise this year, as our researchers' hard work during the darker days of the pandemic begins to blossom and bear fruit. The start of a season packed with high-profile events has awakened the potential of our state-of-the-art auditoriums. From the Common Good Summit to our Executive Education trainings, TSE is hosting multiple projects that crosspollinate our research with fresh ideas and perspectives.
We hope you enjoy this issue of TSE Reflect, which highlights our recent research in sustainable finance. Next month, we'll bring news from our Postal Economics Conference in our focus on infrastructure and networks.
Sophie Moinas,
Director, TSE Sustainable Finance Center
BITCOIN
What's the value of cryptocurrencies?
Does the price of Bitcoin reflect fundamental value or speculation? Follow the latest insight as TSE researchers investigate its transactional benefits and dependence on investors' beliefs about future prices ➜
bitcoin ATM
ETHICAL COMPETITION
Does capitalism corrupt?
New research by Jean Tirole suggests we are too quick to condemn the impact of markets on our morals. In certain situations, he shows that competition may make us behave better ➜
NEW SOCIAL DEMOCRACY

Stay tuned

We'll keep you posted on the latest research and activities via TSE Reflect, our monthly newsletter, full of scientific insights into business, finance and public policy.

Focusing on a different theme every month, TSE Reflect brings you analysis from our academic community on a wide range of fields including competition, digital economics, energy & climate, health, and infrastructure & networks. **Don't miss the 2022 April edition on sustainable finance!**

Sign up at tse-fr.eu/tse-reflect

TSE Reflect

Sustainable Finance Center

Toulouse School of Economics

Publication director: Sophie Moinas
Editor in chief: Eve Séjalon
Production managers: Tiffany Naylor and Pascale Maréchal
Editorial contributions: James Nash
Graphic design and layout: Olivier Colombe
Photos: StudioTchiz, Boris Conte, I-Stock, Evgueny Nelmin / Unsplash *(p.12)*
Laurent Blevennec / Présidence de la République *(p.30)*
Cover photo: Annie Spratt / Unsplash

Toulouse School of Economics
1, Esplanade de l'Université
31080 Toulouse Cedex 06
France
Tel: +33 (0)5 67 73 27 68
www.tse-fr.eu
partnership@tse-fr.eu