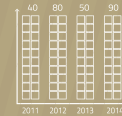
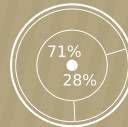
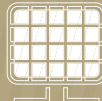
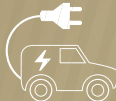
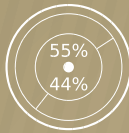
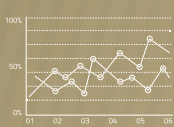


THE TOULOUSE SCHOOL OF ECONOMICS MAGAZINE

TSE MAG

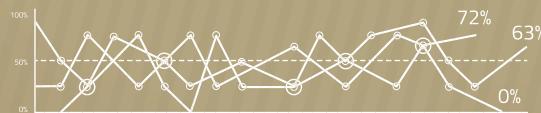
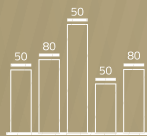
Living economics



SUSTAINABLE

Special issue

FINANCE



Pierre
Moscovici
on Europe's
future

Elhanan
Helpman,
world-class
economist

Education
and inequalities:
fighting
for diversity

The rise
of the sharing
economy

I am delighted and honoured, as the new Director of TSE, to introduce the tenth edition of our magazine. 2016 brings new faces to TSE's leadership as Sébastien Pouget, Professor of Finance at TSE, is appointed Director of the IDEI, our partnership research centre, while Stéphane Grégoir, former Dean of Faculty at Edhec, is the new TSE Dean. The interviews and portraits of Sébastien and Stéphane in this magazine show how extremely lucky we are to have made top recruitments for these two crucial positions.



Many current and recent developments will further establish TSE as a world-class institution both in research and in education, and strengthen its unified and well-balanced governance. To name but a few examples of what we are doing, there is the merger of our three founding research labs into a single research unit, "TSE Research", headed by Jean-Marie Lozachmeur. We have also recently welcomed five outstanding assistant professors at TSE, received stellar evaluations of our three programmes of excellence that were selected as part of the government-funded "Investissements d'Avenir", and launched a path-breaking Digital Chair with the support by Fleur Pellerin, French Minister for Culture and Communication. The latest European Research Council (ERC) and ANR grants awarded to TSE Faculty members, shows once again the quality of the research in our institution.

In terms of education, our new Dean has big plans to strengthen our unique position in the French educational landscape as a school of excellence within the university that attracts the best students and stands out for its rigorous and innovative training thanks to the support of the University of Toulouse Capitole and of the TSE community.

The "big issue" of this TSE Mag is sustainable finance. A well-developed financial sector is essential for prosperity and growth, but finance, like the Roman god Janus, can have an ugly, hidden face. TSE researchers have greatly contributed to research on keeping the financial sector safe from systemic meltdowns. This is one aspect of sustainability in finance. The main aspect is the ability to channel funds to uses that are in line with responsible and sustainable social, economic and environmental development. TSE researchers are also on the forefront of this research, as our "big issue" highlights.

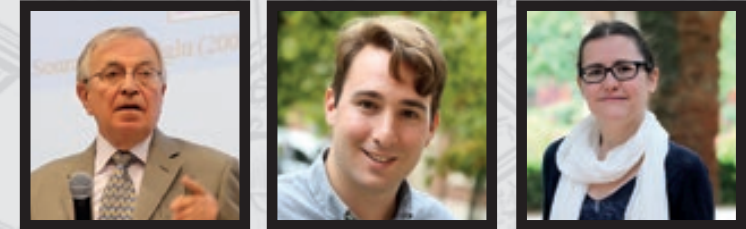
I must close this editorial by profusely thanking my predecessors, Christian Gollier, Deputy Director for two and Director of TSE for six years, and Patrick Rey, Director over the second half of 2015. Without their outstanding contribution and tireless service, TSE would not be what it is today. Following in their footsteps is daunting. The members of the executive team at TSE have the most reassuring privilege though to be working alongside Jean Tirole whose vision and commitment never waver, and who is always willing to support his colleagues.

Ulrich Hege TSE Director

"The main aspect is the ability to channel funds to uses that are in line with responsible and sustainable social, economic and environmental development."

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Nominations



Stefan Ambec

Appointed as editor-in-chief of Resource and Energy Economic

The journal publishes theoretical and empirical papers, firmly grounded in economic theory, that advance our understanding of environmental and natural resource problems and policies. Ambec is a TSE – UT1 researcher who specializes in environmental economics.

tse-fr.eu/people/stefan-ambec



Jean Tirole

Grand Prix in Economics

TSE chairman Jean Tirole, along with BlaBlaCar CEO Frédéric Mazella, has won the 2015 French Grand Prix in Economics. The prize, which recognises academic and entrepreneurial excellence, was awarded in December at a ceremony presided over by France's economy minister Emmanuel Macron.

Sébastien Pouget appointed IDEI director

In January, Sébastien Pouget was named director of the Institute of Industrial Economics (IDEI). Pouget joined TSE and IDEI in 2007 and is working on inefficiencies in financial markets. He will look to continue the excellent work of Hervé Ossard who had been IDEI director since 2011.

tse-fr.eu/people/sebastien-pouget

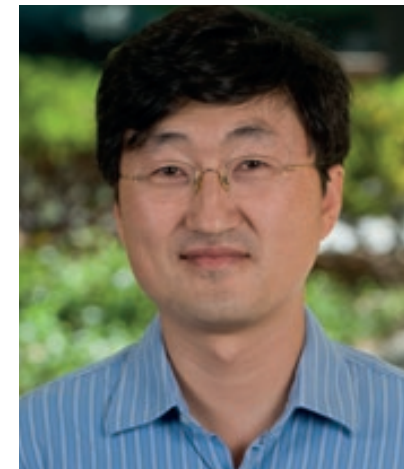
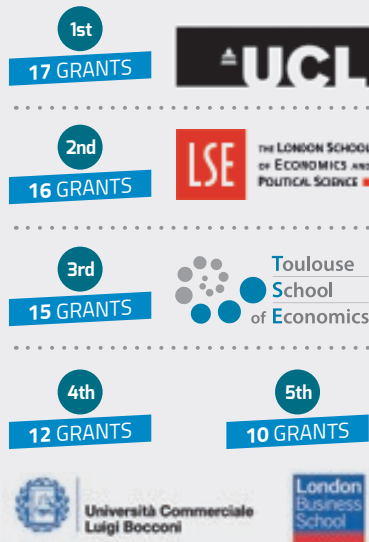


TSE secures top spot for European grants

The TSE community recently received support from the European Research Council (ERC) and the French National Research Agency (ANR) for several research projects. With 15 ERC-backed research projects, TSE competes with some of Europe's top universities, including University College of London, London School of Economics and Bocconi University. The latest research projects backed by the ERC are Bruno Jullien's "ISECO" project and "Normcommitt" led by Daniel Chen. Jean Tirole also recently received a grant for the "MARKLIM" project. These new projects add up to the numerous projects funded by ANR, IDEX or the European Commission and its Horizon 2020 programme.



TOP 5 BENEFICIARIES OF ERC GRANTS



Doh-Shin Jeon

KAEA (Korean-American Economic Association) Annual Prize

TSE-UT1 researcher Doh-Shin Jeon has won the KAEA annual prize for his outstanding scholarly accomplishment and the impact of his research. He specializes in industrial organisation, working on issues related to information and communications technology and intellectual property.

tse-fr.eu/people/doh-shin-jeon



James K. Hammitt

Distinguished Achievement Award from the Society for Risk Analysis

In December the Society for Risk Analysis awarded TSE associate researcher James K Hammitt its highest honor, the Distinguished Achievement Award. This prize is given for extraordinary achievement in risk analysis science or public policy.

tse-fr.eu/people/james-k-hammitt

Event

TSE welcomes national radio for live show

French public radio France Culture broadcasted its morning programs directly from Toulouse School of Economics for a special show dedicated to TSE and its Faculty. In front of an audience of TSE researchers and students, Jean Tirole, Emmanuelle Auriol, Stéphan Grégoir, Léo Wanty and Alexia Lee Gonzalez answered the questions of Guillaume Erner on numerous subjects and on the unique structure of TSE.



Marcel Boyer

Honoured in Canada

Marcel Boyer, TSE associate researcher and professor in industrial economics at Montreal University, has been appointed Officer of the Order of Canada. The award is one of Canada's highest civilian honours, established to recognise outstanding achievement and service to the nation. Boyer was also recently awarded the 2015 Leon Gérin Prize by the Quebec government for his remarkable contribution to the development of social science.



tse-fr.eu/people/marcel-boyer

The rise of the sharing economy

Subject of fear and fascination, TSE mag takes a quick look at this phenomenon as Augustin Landier publishes a note on the subject for the French Council of Economic Analysis.

New jobs have been created outside of the traditional sectors, for freelancers or entrepreneurs, as companies such as Uber, Airbnb and BlaBlaCar spread their wings. But many businesses and

livelihoods have been disrupted, including those of taxi drivers and hotel workers. Each time the bottom line is the same: a more flexible, customer-oriented and cheaper service.


The French Council of Economic Analysis is an independant organism publishing public reports for the government. It is composed of renowned researchers in economics.

How can we better prepare for the rise of the sharing economy?

TSE researcher Augustin Landier recently wrote an article on the digital economy for the French Council of Economic Analysis.

From the media to cars, tourism, agriculture and healthcare, the transition to digital technology creates new business models. It's pointless to define a "digital sector" to which special measures would apply as it's the whole economy that is in flux.

To answer the challenges of developing innovative regulation and competition policy while fostering job creation, Landier and his co-researchers offer a series of policy recommendations.

 **Read the full text here:**
<http://www.cae-eco.fr/IMG/pdf/cae-note026-en.pdf>

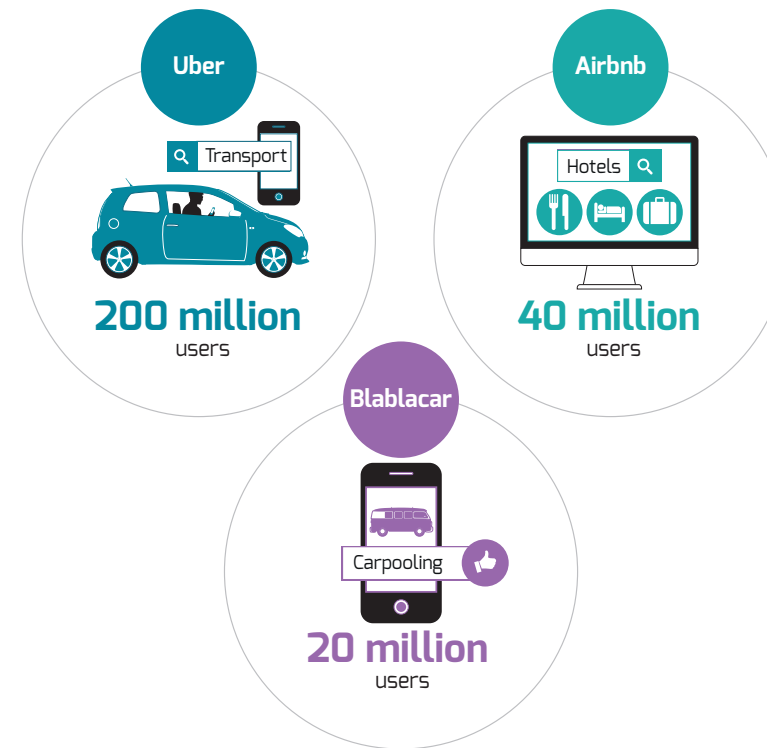
An observatory of the sharing economy

Two entrepreneurs, Grégoire Leclercq, president of the French Federation of auto-entrepreneurs and Denis Jacquet, president of the Sponsoring Growth association launched the "Observatory of the sharing economy" in France. Their objective is to study the effects of the digital transformation on companies, from consumption to distribution and to search for the best solutions for both entrepreneurs and consumers. Events on the subject will take place in spring and gather economists, economic leaders, large companies, politicians and unions to exchange on the digital revolution and the rise of the sharing economy.







300 billion euros

That's the estimated revenue of the five big sharing economy sectors in 2025. Current revenue is €13 billion. A third of Europeans expect to be more involved in the sharing economy in the years to come.

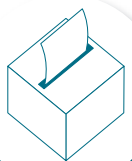
Consumer Intelligence Series: "The Sharing Economy". PwC 2015.



Sectors already in flux

- TAXIS**
 Uber is profoundly changing the market with a cheaper and more customer-friendly service while taxis contest the end of their monopoly.
- BOOK STORES**
 Amazon allows authors to self-publish their books on Kindle, bypassing traditional publishers.
- HOTELS**
 Airbnb proposes 1.5 million flats and houses to rent for a night around the world. Anyone can easily rent their own place.
- LAWYERS**
 WeClaim is a platform making class-action lawsuits much easier to start or join. The service uses algorithms, semantic tools and big data to help its customers.
- BANKING**
 Crowdfunding platforms and peer-to-peer lending allow people to directly channel funds to a project without the intermediary of a bank.
- RESTAURANTS**
 Vizeat wants to be the Airbnb of food, allowing anyone to receive guests and cook for them for a determined price.

Source Observatoire de l'Ubérisation



POLL


Does Uberisation pose an economic threat?

TELL US WHAT YOU THINK!

Answer the question on our blog debate.tse-fr.eu/polls

Save the date

- 31 MARCH-1 APRIL 2016**
Postal Economics Conference
Toulouse
- 14-15 APRIL 2016**
Collective behaviour in the Big Data era
Toulouse
- 13-14 MAY 2016**
Financial Econometrics Conference
Toulouse
- 26-27 MAY 2016**
Taxation Theory Conference
Toulouse
- 30-31 MAY 2016**
Economics and Biology Workshop
Toulouse
- 16 JUNE 2016**
TSE Digital Forum
Paris

 Events by invitation only, find out more: tse-fr.eu/events

JEAN TIROLE ON ELHANAN HELPMAN

Harvard economist keeps Laffont flame alive

In October, the Institute for Industrial Economics (IDEI) and the city of Toulouse awarded the 2015 Jean-Jacques Laffont prize to Harvard's Elhanan Helpman. The Israeli-American is the 10th laureate of this prestigious prize which honours world-class economists working in a 'theory-meets-practice' spirit, in the tradition of TSE founder Laffont. Here Jean Tirole, TSE's chairman, pays tribute:

"On behalf of the city of Toulouse, which I would like to thank for its unfailing support, and the IDEI, it is a great honour and pleasure for me to introduce Professor Helpman. Elhanan is not only the world leader in his field, he was also a dear friend of Jean-Jacques Laffont. They studied together at Harvard and co-wrote a beautiful paper in 1975 on moral hazard in general equilibrium theory.

Elhanan, an Israeli citizen, was born in the former Soviet Union and spent his childhood in Poland and Israel. Originally interested in engineering, he began his PhD in economics at Harvard University in 1971. After many years at Tel Aviv University, he returned to Harvard, where he is professor of economics. He is also very involved in the Canadian Institute for Advanced Research.



Elhanan Helpman, 2015 Jean-Jacques Laffont Prize

Elhanan has performed outstanding work in two key areas in modern economics: international trade and growth. In international trade, he transformed the field through the introduction of increasing returns, the integration of multinational corporations into standard trade models, and finally through a pioneering study of the impact of politics in trade policy.

He analysed trade flow patterns and reached two conclusions that were not accounted for in the paradigm taught during his student years, based on the role of factor endowments and Paul Samuelson's factor price equalization. First, he submitted that world trade was mediated by multinational corporations and that market structure, the suppliers' industrial structure, taxes, property rights protection and legal systems mattered. Second, he argued that most trade was happening between countries of a similar economic level, contrary to the then-prevailing theory of comparative advantage. In 1985 he and Paul Krugman co-authored *Market Structure and Foreign Trade*, which 30 years later remains the leading graduate textbook in trade theory.

 **Video interview with Helpman:**
[youtube.com/tsechannel](https://www.youtube.com/tsechannel)

"This prize has a very special meaning for me. Jean-Jacques (Laffont) and I became great friends ever since we wrote a paper together as graduate students at Harvard, many years ago. He was a great man with endless energy. He was passionate about economics and he built a wonderful center here in Toulouse."

Elhanan Helpman

With Gene Grossman, he started a whole new theory in the early 2000s on multinational firms and multinational corporations (encompassing the notions of outsourcing and offshoring). Using micro-founded modelling of the internal organization of firms (the make-or-buy decision), they captured the fact that a large and increasing share of global trade is happening within firms, on which existing theories were silent.

He and Grossman have also done substantial work on the competition for protection among political interest groups. Their work proposes to endogenize trade policy. Their research on the politics of protection, quotas, taxes and free-trade areas has suggested that an industry's level of protection is related, among other things, to the level of its political organization, its exposure to foreign trade, and the responsiveness of domestic prices to variations in tariff protection. Their 1994 paper on 'protection for sale' is essential reading on the subject.

In growth theory, along with Philippe Aghion, Peter Howitt and Grossman, he cast innovation as an engine of growth alongside the traditional factors of labour and capital and thereby co-founded the

theory of endogenous growth. He and Grossman have built an influential model of quality ladders and innovations.

With Elhanan Helpman, the Jean-Jacques Laffont Prize rewards once again one of the world's leading economists. A theorist with much intellectual rigor, he is also keenly aware of the need to confront theory with data and to move back and forth between the two. He contributed to the empirical understanding of international trade. Elhanan, we are honoured and grateful that you accepted the prize." ■

"Professor Helpman, as the co-founder of pioneering international trade and growth theory and one of the most celebrated economists worldwide, it is only natural that you should receive this prize. Congratulations!"

J-L. Moudenc, Mayor of Toulouse

Jean-Jacques Laffont Prize: Hall of Fame



2015
Elhanan Helpman



2014
Joseph Stiglitz



2013
Eric Maskin



2012
Robert Townsend



2011
Robert Wilson



2010
Roger Myerson



2009
Richard Blundell



2008
Stephen Ross



2007
Daniel McFadden



2006
Peter Diamond

RESEARCH BY MATHIAS REYNAERT

Cheating in emissions testing

Volkswagen has admitted cheating in emissions tests and is currently being sued by the US Department of Justice. The affair has already had a huge impact on the car industry, but Mathias Reynaert believes cheating is not limited to the German brand or to particle emissions.



Mathias Reynaert
TSE researcher

Mathias Reynaert started to work on car emissions during his PhD at the Universities of Leuven and Antwerp. He joined TSE in September 2015 to study econometrics and is currently investigating the reactions to cheating in the car market with his co-author James Sallee (University of California Berkeley). Using data from a car-leasing Dutch company called Travelcard, Reynaert has measured the real fuel consumption of vehicles on the road and compared it to car manufacturers' claims.

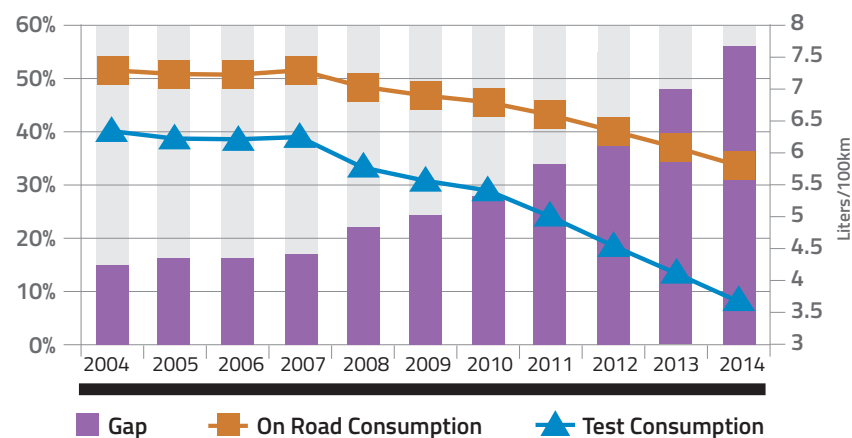
"In 2004, the difference between tested and real consumption was about 10%. This result seems natural because during the test the circumstances are ideal, there is no air conditioning or other electronic functions running. This 10% gap isn't really an issue. Starting in 2007, though, we notice a sudden increase of this gap which is clearly correlated to regulatory pressure. The EU has one of the most stringent emissions standards in the

world, requiring an average limit of 130 grams of CO² per kilometer for vehicles. This standard was announced in 2007 and it's the exact year the gap between tested and real consumption started to widen. It has increased to about 40% over the last five years."

According to Reynaert, this increase is mostly due to exploiting loopholes in the tests: "Firms are responsible for conducting the tests. This gives them a lot of possibilities to manipulate test results. In 2007, as the EU announced that the emissions of new car models would be below 130 grams of CO² per km, manufacturers had to adapt." Reynaert argues that emissions became much more important for car manufacturers, not just because of EU regulation, but also because of national environmental policies: "Taxes in several European countries were redesigned to support cars with lower emissions in the years after 2007." Reynaert's findings suggest that a much

"A new scandal may shake the car industry"

greater cheating scandal is set to hit car manufacturers as the fuel consumption they have announced does not represent their vehicles' real consumption. This also means that real CO² emissions are much higher than reported in tests. "Each firm has incentives to comply with the regulation but if one firm starts to cheat, the others are enticed to cheat as well,



mostly because it is very hard to prove that competitors have cheated."

Reynaert believes both the problem and the solution lie with the regulation agencies. "You could say that the regulators are to blame because they're responsible for setting up regulation that lets car makers report their own emissions. We need more realistic, randomized testing enforced by third parties. This will give consumers clearer information on emissions and consumption. European countries must revise their regulation because their requirements in terms of on-road consumption might be too costly."

In another article, Reynaert has also analyzed the effects of different regulation strategies. "Fuel taxation works better to reduce emissions because people who drive a lot are very responsive to it and thus end to buy fuel-efficient cars after a tax increase." These results are in line with several other articles which highlight the efficiency of fuel taxes.

RESEARCH BY PEPITA MIQUEL-FLORENSA

Coffee: from farmer to cup

Pepita Miquel-Florensa, who joined TSE in 2009, specialises in development economics and has investigated economic processes in the coffee value chain. She has conducted fieldwork in Colombia, Mexico, Paraguay, Haiti, Costa Rica and Kenya. Here, she explains her interest in coffee and its production.



Coffea cherries

TSE Mag: What led you to focus on the coffee production chain?

I have always been highly addicted to coffee. The diversity of origins and certifications we find on the market caught my attention and inspired me to investigate the coffee value chain. I started work on farmers' associations in Costa Rica in 2011 and slowly developed towards the complete production chain, from farmers to our cup.

Tell us more about your research projects?

A big part of my research is dedicated to contracts in developing countries, especially those regarding coffee production. This work started with a lab-in-the-field project in Costa Rica, with fellow TSE researcher Astrid Hopfensitz. The project allowed us to estimate how the ownership structure of mills where

farmers sell their coffee cherries – either cooperative or privately owned – affects farmers' cooperative behavior. I then worked with Emmanuelle Auriol, also at TSE, on how fair-trade agreements give farmers incentives to produce higher quality coffee and how these agreements affect the economic sustainability of the institutions holding the fair-trade label in different competitive environments.

These projects investigated the very first stages of the production chain and sparked an interest in what was happening after the coffee left the mills. We are currently working with Rocco Macchiavello (Warwick University) on the issues of supply insurance and demand uncertainty and how they shape relations between mills and exporters in Costa Rica. This setting allows us



...

to compare vertical integration with relational contracts and one-shot trade between independent partners. We find that trade within firms is isolated from market forces, even if with a cost, and that relational contracts behave qualitatively, but not quantitatively, as integrated trade.

What really surprised you while working on these issues?

Coffee is exclusively produced in developing countries. While production utilizes very simple technology to transform cherries into parchment (the first processing stage, usually done in the producing country) we observe very different institutional responses to the problems of the coffee sector: from countries such as Colombia where coffee boards participate in the market,

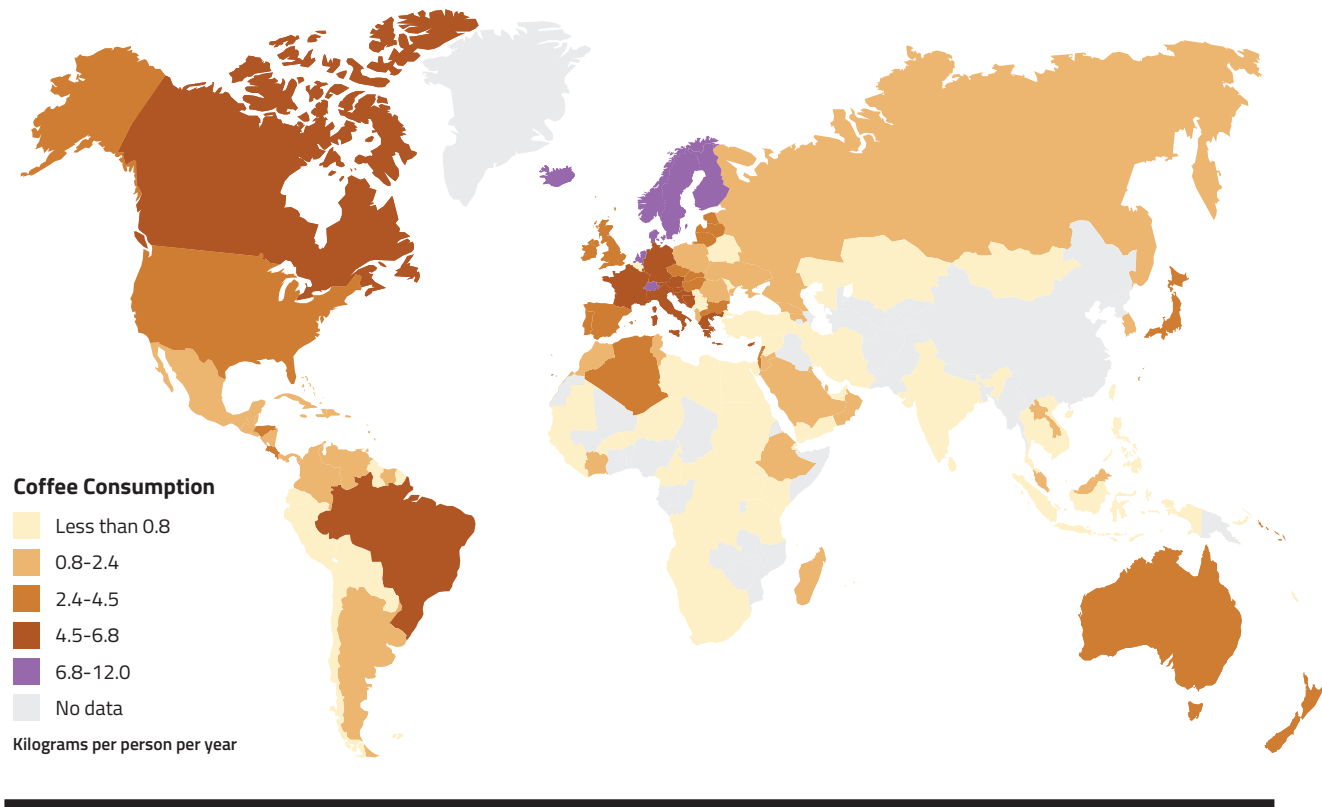
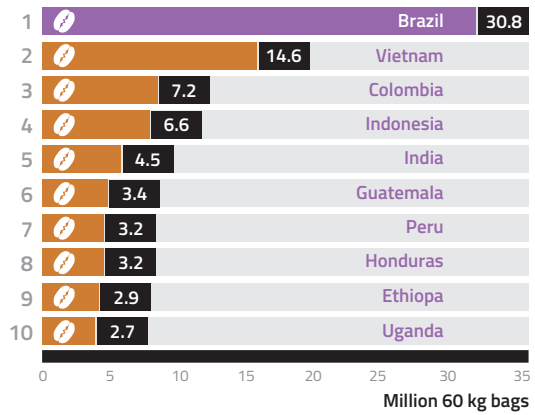
to boards with purely supervisory roles as in Costa Rica, or interesting institutions such as the Ethiopian Commodity Exchange. This variety of institutions and market structures for the same product really surprised me and made me want to examine each of them. It also makes a cross-country analysis very relevant for policy recommendations.

What is your next destination?

Thanks to a grant from the International Growth Centre (a UK-funded research network), we are extending our cross-country analysis with Rocco Macchiavello to the coffee value chain in Colombia. I should

be travelling to Bogotá in early February to follow up on the data compilation. I am really excited by this project because the Colombian setting is particularly interesting given the history and the structure of the market. ■

World's top 10 coffee exporters



Special Sustainable Finance and Responsible Investment

14 Feature

- Sustainable Finance and Responsible Investment Chair: one of a kind
- New challenges in finance

15 Expertise

- Complex motivations
- Is it worth being green?
- CSR promises and challenges

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- Are we doing enough for future generations?
- A look at responsible finance projects



Sustainable Finance and Responsible Investment: a one of a kind chair

Faced with the growing demand for savings management which addresses extra-financial criteria, the French asset management industry has, for several years, decided to offer socially responsible products, including investment funds. The rapid increase in the amount of money invested in SRI requires a discussion on how they are managed, selected, approved and assessed. How can we best respond to the expectations of the public, who are particularly concerned by social performance? The growth of SRI relies on the establishment of new methods to assess financial assets, taking new sustainable development criteria into consideration.

Providing an academic basis to this approach is the purpose of the "Sustainable Finance and Responsible Investment" (FDIR) chair created in 2007. It is one of a kind due to the broad representation of contributing practitioners and researchers, as well as the way it works, based on dialogue between professionals and academics.

Coordinated by Catherine Casamatta and Sébastien Pouget for Toulouse School of Economics-IDEI and Patricia Crifo for the Ecole Polytechnique, it unites a multi-disciplinary team of researchers from the two institutions. Under the initiative of the French Asset Management Association (AFG), the chair is supported by around 10 partners: management companies as well as the Pensions Reserve Funds and the Deposits and Consignments Fund.

This support mainly takes the form of partnerships with practitioners to identify relevant research themes. It helps link academic research with the concerns of actors in the financial industry and companies: the issues raised are, for example, focused on the nature of individual requests for SRI, the assessment of long-term projects, or even the impact of social responsibility policies on company performance.

Building on the support from its founders, the FDIR chair has expanded by recruiting researchers internationally and organising various conferences focused on researchers and professionals.

 The chair's website: www.fdir.idei.fr

Over \$20,000 billion worth of assets

The level of sustainable development at an international level.

(source GSI Review 2014)

CATHERINE CASAMATTA AND SÉBASTIEN POUGET

New challenges in finance

What economic value should we allocate to air quality or the risk of a fatal accident? How can we account for the well-being of future generations in our investment decisions?

"Academic research offers tools which help deal with scientific issues by considering the preferences of the general public, the uncertainty or ambiguity linked to long-term considerations or anything that affects human life", underline Catherine Casamatta and Sébastien Pouget, joint coordinators of the Sustainable Finance and Responsible Investment chair for the Toulouse School of Economics-IDEI.

Sustainable finance is a relatively recent and fast-growing concept. On a global scale, it accounts for over \$20,000 billion worth of assets (source: GSI Review 2014), a sizeable pool of savings. The aim is to finance the economy whilst considering extra-financial criteria (environmental, social and governance), with a focus on sustainable development. The emergence of funds known as "Socially Responsible Investment" (SRI) demonstrates this trend, where assets

"Sustainable finance is a relatively recent and fast-growing concept."

are allocated based on the long-term impacts of the investments that are being financed.

The growing need for responsible investment provides an excellent basis for the development of these financial products. However, the

lack of a consensus regarding asset selection techniques for socially responsible portfolios, the aim of SRI and its impact on how our economies work requires specific and practical responses. It is also the role of academics to provide these responses.

We are therefore particularly concerned about the socially responsible aspect of an investment decision. This also puts forward the question of the actual commitment of companies and investment funds to social responsibility. The temptation to buy a low-cost reputation can discredit the genuine efforts of certain funds and companies, placing too much focus on labels and certification for extra-financial performance.

We are focused on understanding the impact of an investment, not just for investors through their financial performance and well-being, but also on society as a whole. For example,



investors can boycott companies, and therefore affect their capital cost and their finance capacity, but they can also be more active in their governance. They play a role with SMEs via the distribution of extra-financial issues across the investment capital sector. Socially responsible investors have various means of action to improve the behaviour of these companies, where necessary.

The FDIR chair's research suggests methods to understand how to use these levers for good. This work has notably contributed to the emergence of new evaluation methods which consider the environmental and social consequences of company activity over the long term. ■

JEAN TIROLE AND ROLAND BÉNABOU

Complex motivations

Genuine generosity, personal interest: what are our real intentions? Jean Tirole and Roland Bénabou have used recent developments in the psychology and economics of virtuous behaviour to explain what guides our investment decisions.

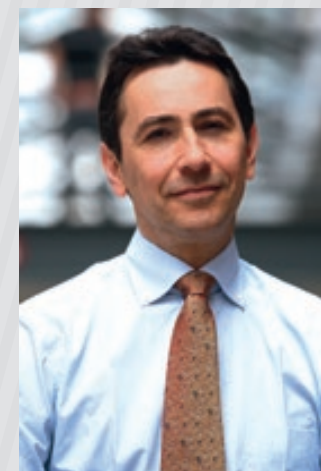
"Virtuous behaviour on the part of investors, consumers and employees is down to a complex combination of motivations: genuine generosity, external incentives to adopt certain behaviours (particularly due to laws or subsidies) and the desire to appear a certain way, i.e. to create a good impression (in their own eyes and in the eyes of others)." This third factor is more significant if the behaviour is public (above all amongst people who we are looking to impress) and if it is memorable. "When the desire to create a good impression is significant, financial incentive can be counter-productive. Contrary to basic economic principles, it can limit the desired social behaviour", explains Jean Tirole.

Additional experiments at MIT ⁽¹⁾ have demonstrated that financial incentives are very powerful when the contribution to public well-being is not seen, and have a lesser effect when it is clearly visible to all. "Therefore, if they are compensated, individuals are afraid that their contribution could be interpreted as a sign of greed." To improve the effectiveness of social

or environmental policies, policy decision makers and social activists must understand these interactions and rely on the desire of certain individuals to behave in a socially responsible manner: it is better to subsidise private behaviour, which is not seen by others, rather than public behaviour where the desire to look good becomes a factor. Jean Tirole summarises: "It is better to provide subsidies for an environmentally friendly boiler - which is not seen - rather than a hybrid car which is seen by everyone."

This work also offers an interesting clarification regarding the demand for SRI funds. It shows that financial incentives cannot be disregarded - investors are still looking for decent returns. However investing in SRI is also a way to gain some social reputation. The funds can rely on these conclusions to fine-tune the design of their financial products or adapt communication campaigns in order to increase demand, relying on investors' desire to look good. ■

(1) Massachusetts Institute of Technology



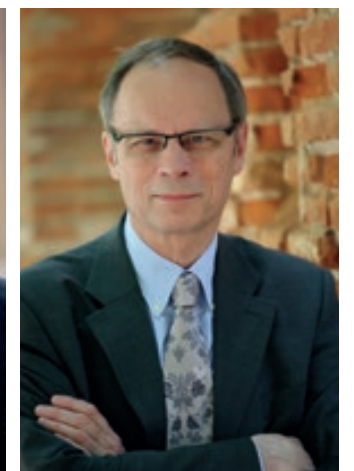
Roland Bénabou



Catherine Casamatta



Sébastien Pouget



Jean Tirole

RESEARCH BY STEFAN AMBEC



Stefan Ambec
TSE-INRA researcher

Is it worth being green?

In order to respond to this question we must try to understand the systems in place, therefore contributing to improved company evaluation. This can also help socially responsible investors when selecting companies where environmental innovation goes hand in hand with profitability.

The hypothesis put forward by the Harvard University professor Michael Porter has been extremely successful, as it refutes the idea that environmental protection can only take place at the detriment of financial growth, but it has also been strongly contested by economists, who question the paradigm of maximising profit, which provides the basis of business. TSE researchers have shed new light on this hypothesis.

"Our work shows in particular that, although strict policies supporting environmental protection contribute to increasing the environmental performance of companies, more flexible policies seem to be more effective", explains Stefan Ambec. "Taxing or limiting pollutant emissions through regulations encourages more innovation as opposed to interventionist technological constraints, such as imposing catalytic converters. They also show that

Taxing or limiting polluting emissions with norms is more favorable to innovation than technological constraints.

these environmental policies lead companies to increase their investments in R&D processes, which has a positive effect on their overall performance." Unfortunately, this indirect positive effect is counter-balanced by the direct negative effect of environmental regulations. "As Porter puts it, 'the economic benefits linked to environmental innovation do not cover the costs incurred by regulations'", laments Stefan Ambec. "Environmental regulations therefore lead to an overall net cost for the economy, and there is no 'global miracle'..."

What recommendations can we therefore take from this? We should encourage innovation as a response to environmental constraints through more demanding but flexible regulations for companies, i.e. relying on financial instruments such as taxes or tradeable permits. But we should

also encourage investment in new green technologies, notably through the development of SRI and transferring technology linked to the environment.



Stefan Ambec
"Environmental Policy, Innovation and Performance: New Insights on the Porter Hypothesis" (*Journal of Economics and Management Strategy*, Volume 20, n° 3, Autumn 2011) co-authored with Paul Lanoie, Jérémy Laurent.

Researchers have tested the validity of Porter's hypothesis by using data pertaining to environmental policy, R&D, environmental performance and business performance. This analysis is based on a survey led by the OECD with 4,200 establishments employing over 50 workers, representing 24 manufacturing sectors, located in seven industrialised countries (Germany, Canada, USA, France, Hungary, Japan, Norway).

NICOLAS TREICH INTERVIEW

CSR promises and challenges

An increasing number of companies are producing Corporate Social Responsibility reports. Are they just spin or reality? How can we decide? These are questions which go beyond the strict field of finance, involving researchers within TSE including the Environment group, which is managed by Nicolas Treich.

How can we assess companies' social and environmental impact?
This is a complex issue and nothing new! Milton Friedman discussed it in a famous editorial⁽¹⁾. It put forward economists' views on the matter, which are still relevant now, based on two arguments. The first: it is not the responsibility of entrepreneurs to do good things. They are not experts in ethics and public well-being. The second: the effort to build greener goods is costly. These two ideas have been criticised and the modern economy has led to changes. Friedman explains that public decision makers are faced with problems such as corruption, lobbying and a lack of information. Some entrepreneurs are therefore



Nicolas Treich
TSE-INRA researcher

"My colleagues and I are developing a method, the cost-benefit analysis, in order to measure the social impact of firms."
Nicolas Treich

making the effort by producing electric or hybrid cars, hoping to be rewarded on the market. If the consumer is ready to pay for these products, the company can be competitive and investors will reward them.

Doesn't this alternative pave the way for CSR?
I am not sure that the certification market is currently able to identify virtuous companies for investors and consumers. Of course, they all produce reports, but there are no standards, we don't know what is being measured, so this can lead to spin or even greenwashing. Even the most polluting companies produce CSR reports. There have been precedents: British Petroleum and Volkswagen were ranked top by certifiers. These rating agencies are appointed by the companies. Their methodology is rarely transparent. There are various studies on sustainable development but the decision makers cannot inspect factories to see if they are environmentally friendly! Citizens are poorly informed: the products are so complex that it is difficult to understand whether they are environmentally friendly or not. So it doesn't work! There is a real problem with this evaluation process.

What solution would you recommend?
I hope that we can implement effective information and certification systems to reward companies that make an effort and penalise those who don't. Over time, when citizens realise that some companies are using spin, there is a risk that the movement might lose momentum. Therefore, the easiest solution would be to adopt a Friedmanesque approach: the public decision maker, who is benevolent and independent of pressure groups, taxes anything that isn't good for society, and rewards anything that is.



What could academic research contribute?
I have developed a method: the cost-benefit analysis, which helps measure companies' environmental responsibility; giving a monetary value to these companies' social impact. The cost-benefit analysis is part of a range of resources available to us. It is a transparent and robust methodology. It can be used to assess companies' social and environmental impact.

For more information :
"Behavioral Environmental Economics: Promises and Challenges", Rachel Croson, University of Texas at Arlington Nicolas Treich, Toulouse School of Economics (LERNA-INRA).

(1) In 1970, Milton Friedman published a famous article in the New York Times Magazine entitled "The social responsibility of business is to increase profits". At odds with this opinion, the weekly magazine The Economist noted in its special report on 19 January 2008 that the issue was not about knowing if companies should commit to social and environmental responsibility, but how they should do it.

Link to the article :
www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html

RESEARCH BY CHRISTIAN GOLLIER

Are we doing enough for future generations?

Christian Gollier's article asks a difficult question regarding the balance of efforts to support future generations, whether in terms of climate, infrastructure or preserving natural resources.

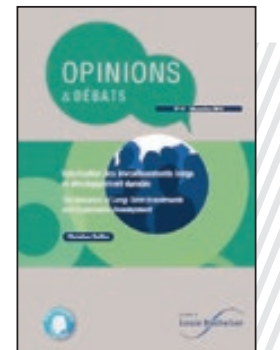
It's a major issue. It's therefore a key focus within governments and companies: what value should we give to the distant future? Or, more specifically, what value should we allocate now to an investment made now, but with financial, environmental and social effects which will not arise until the more or less distant future? In companies, the calculation is


carried out on a daily basis by discounting cash flows. The issue is also relevant for public investments. When deciding to build a new railway line, the profitability of which is measured over decades, we have to choose an interest rate, which will determine project success. If the rate is high, the investment will be unattractive, with future profitability reduced down to a low amount...

This problem can be extended to sustainable development. As it is impossible to estimate the current value of a future profit, it is also necessary to discount the cost of uncertain future environmental damage. We can therefore calculate potential future damage caused by current emission of a tonne of CO₂. If we are looking at a very long term impact, its current value will depend significantly on the discount rate used.

"Our social responsibility to future generations is based, in economic terms, on a discount rate, which gives a value to the future based on the present, determining the present/future trade-off of economic agents", explains C. Gollier. The discount rate is a vital tool to measure and compare the scope of investments in the long term. The difficulty involves determining a fair rate, which transcends generations to ensure collective well-being.

"In a growing world, investing involves asking current generations to sacrifice part of their income to increase the incomes of future generations, who will be significantly richer than them. In other terms, investing involves increasing



 louisbachelier.org

inter-generational inequalities. An aversion to inequality makes it socially undesirable. The discount rate must therefore be interpreted as the minimum profitability rate for investments, which compensates the negative impact of these investments on intergenerational well-being. However major uncertainty regarding growth must encourage us to reduce this discount rate. This is even more true when looking at climate change and uncertainties relating to the possibility of 'secular stagnation' or macroeconomic catastrophes."

In his article, which combines mathematics and finance, Christian Gollier considers a range of debates on determining a discount rate. He identifies the socially effective rate and defines reasonable

"Over human history, growth has long been significantly below 2%. 100 years ago, GDP per inhabitant was 7 times lower than today."

8

The estimated cost, in dollars, of the damage of one tonne of CO₂ released into the atmosphere, according to William Nordhaus (Yale University), which includes a discount rate of 5%.

85

The same figure recalculated by Nicolas Stern (London School of Economics), with a discount rate of 1.4%. The damages appear so high in Stern's analysis that the emission reduction policies become a priority.



values. His methods consider growth variations, the effects of caution, social benefits and even extreme events. His aim: to describe our responsibilities towards future generations through investment valuation operational rules which consider the major uncertainties surrounding the distant future.

"Caution and the wide range of uncertainties regarding future generations' prosperity justifies the existence of two discount rates", he explains. "If we believe in the sustainability of an economic growth rate of around 2% in the coming years, it is reasonable to use a current rate of around 3-4% to discount risk-free projects for the corresponding temporary future. I have also shown that there are strong arguments for using a lower discount rate - up to 1% - for even more distant futures, if we consider the significance of the uncertainties which surround the economic environment of these future generations".

This work has already paid off. Christian Gollier contributed to the French government keeping two rates from 2005: one at 4%, discounting the benefits of investments under 30 years, and 2% beyond this.



A look at sustainable finance initiatives

Down with coal!

A Norwegian sovereign wealth fund recently decided to sell all its investments in coal (i.e. \$900 billion) In 2015, \$2,600 billion worth of assets were sold by investors looking to commit to efforts against climate change.

A CO₂ index

The Swedish AP4 pension funds and the financial services supplier MSCI have created a low-carbon stock index, solely including low environmental impact companies in order to redirect some investments into sustainable companies.

Green loans

The institution is committing €15 billion between now and 2017 to investments compatible with energy transition. In addition, a €5 million package is aimed at financing green loans for local communities, and €1 billion has been invested through the BPI in new companies fighting against climate change.

Climate portfolio

The European insurance company has made firm commitments against climate change by tripling its sustainable investments to €3 billion, whilst simultaneously reducing investments in carbon-related companies. The Group has also introduced Environmental, Social and Governance (ESG)-related criteria in its portfolios.

Pierre Moscovici on Europe's future

The former French Minister of Economy, now European Commissioner for Economic and Financial Affairs, recently visited TSE to give a speech about "The European Economic Policy of Tomorrow" in front of the students. Extracts.

How do you analyse the current economy of the European Union?

I recently presented the European Commission's economic previsions for the years to come: growth should reach 1,7% in 2016 and 1,9% in 2017 in the Eurozone. Unemployment should go down to 10,5% this year and 10,2% the next. These are no longer crisis numbers but those of an economic recovery. However, youth unemployment remains close to 20% and growth takes longer than anticipated to accelerate. These encouraging numbers shouldn't conceal our dire need for reforms. We can witness centrifugal forces both at the heart of the Eurozone, i.e. Germany, France, Italy, and Netherlands, which represent roughly 75% of its GDP and in the rest of the Eurozone. These forces seem to lead to an economic alignment of the Eurozone, but, if we look closely, the effect might be deceiving. The current economic

situation is threatened by several factors among which a subdued internal demand, a general context of internal devaluation and a labor cost which will keep decreasing even in countries where it's already too low. This configuration will make an adjustment process of debt reduction and conversions of the Eurozone economies harder.

How can the European Union answer to those challenges?

That's where we need what I would call second generation structural reforms. They need to be sustainable and balanced. Sustainable because their conception needs to take into account economic efficiency as well as social and environmental effects which means we need to systematically evaluate those. Balanced in the sense that their objective must be

to lead to economic and social cohesion in the Eurozone as well as to reduce inequalities and sustain convergence.

What would those reforms be?

I will talk about five of them, starting with the evaluation of the quality of public investments by systematically implementing an "experiment, evaluate, simplify" process. In a context of budget constraints every euro spent must make an impact. The struggle against annuities comes next with a systematic inversion of the burden of proof: what is the

public contribution of this or this annuity? Thirdly, the security of the professional careers must be reformed. We need to design a protection model for individuals and not for jobs by contesting the implicit doctrine of internal devaluation as a final objective of the labor market reforms. I would also mention the priority of human capital at any age and for everyone. This is crucial to make the European continent a leader in terms of qualifications but also to lower the dispersion of qualification levels. In concrete terms, it means that the educational systems, whether for children or students, research, innovation and R&D must become an absolute priority of the European economic policy. Finally, we need to think a fairer tax system in order to better combat inequalities between European countries. Firms should pay taxes where they generate profits, tax optimizations must be stopped.

What do you think about the current European governance?

Our governance is lacking, in my opinion, on three major fronts starting with the links between the Eurogroup, the monthly

meeting of the European ministers of finance and the European parliament. The Parliament members sometimes feel that the Eurogroup works as a "black box" and it is important to enhance its transparency. Secondly, existing arrangements do not cater for the articulation and the expression of the European general interest. The Eurogroup, in its current form, mostly operates as a platform for head-on confrontation between opposite, national sources of legitimacy. The Commission attends the meetings of the Eurogroup, but is not firmly part of the decision-making process. Finally, we struggle to reconcile complexity and credibility. Our reforms always have the ambition to be flexible and adaptable to different situations but, doing so, they become most of the time very complicated which decreases their credibility.

What would you recommend?

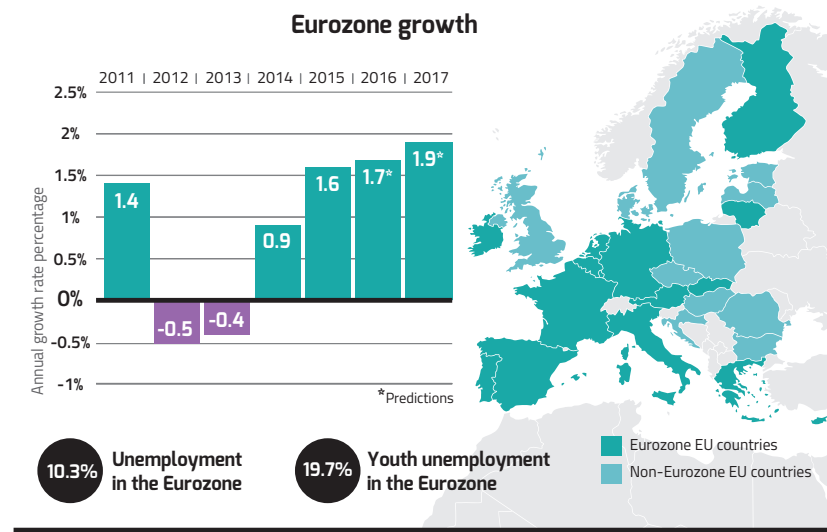
We need to rethink European governance in order to make regulations at the service of macro-economic policies at the European



scale. I think that the role of the European Commission should be dramatically enhanced in the Eurogroup, and that the Commission should be represented by a

"In order to enhance the efficiency of European regulation, new and ambitious initiatives must be deployed."

Eurozone Finance Minister. The Minister would be in the front line to handle crisis on behalf of the euro area community and would be appointed by the European parliament in order to ensure democratic legitimacy. A Eurozone Finance Minister would also be better suited to implement financial regulation and propose economic reforms. In order to enhance the efficiency of European regulation, new and ambitious initiatives must be deployed. The tools we have today are not preparing us for the future challenges and they already aren't enough to deal with today's issues. ■



Preparing tomorrow's future, today

The Institute of Industrial Economics (IDEI), a partnership-based research centre, working with TSE Faculty, its investigations over the past few months through new research partnerships.

Topical questions

What is the common link between the Central Bank of Luxembourg (BCL), the Andorran Government and Meridiam? All three have just partnered with the IDEI, choosing to rely on academic research to address their problems. These problems relate to climate change, macroprudential policy, regulation and financing public infrastructures. They have witnessed major changes over the past few decades, requiring a relevant consideration of the uncertainties which surround the future economy, which will determine what we will leave to future generations. To respond to the challenges of tomorrow, it is vital to prepare today. This is the focus of these new research contracts.

This is the case for central banks. The transformation of the financial system and the advent of globalised capital markets in the 1980s has changed

how monetary policy works, as well as citizens' expectations. Central banks have become independent authorities dedicated to maintaining stable prices and financial confidence as a priority. Up until the start of the 2000s, economic and financial research was not considered as a core business issue. The subprime mortgage crisis changed everything. The risk of inflation was succeeded by the risk of deflation, and there is a general agreement on the need for strong initiatives to support research. This is a measure of credibility and helps with decision making, leading to greater effectiveness when accomplishing tasks. The BCL's approach, which relies on TSE researchers to encourage the "cross-fertilisation" of existing teams and the research community, demonstrates this change in particular. Gaston Reinesch, Governor of the BCL, underlines its importance: *"We aim to reinforce monetary, financial and economic research at the BCL, in areas which are particularly important for central banks. This reinforcement must also contribute to the improvement of economic and financial dialogue in Luxembourg"*.


Governments must also address unprecedented crises which endanger entire sections of their economy. How can we anticipate these changes, what adjustments should we suggest, what tools should we use? These are some of the questions which the TSE researchers will attempt to resolve in the coming months, to fulfil the high expectations expressed in Andorra, as explained by Silvia Calvó Armengol,

Andorran Minister for the Environment, Agriculture and Sustainable Development *"The government has implemented ambitious environmental policies, particularly relating to energy. It is difficult to assess all the effects of the measures put in place, so as a decision maker I think that an assessment system is vital if we want to measure their effectiveness and improve them if necessary. The partnership with IDEI will help us to benefit from the know-how of their research team and to launch research which will be very helpful when making decisions."*

Introducing 3 new research partnerships

Another significant change: the constraints on public budgets which increasingly calls upon the private sector to finance and manage infrastructure, particularly through concessions and public-private partnerships. Whilst funding was previously generally provided by the banking sector and private operators, investors are playing an increasingly important role in the funding of major facilities. Investment funds for infrastructures are now an entirely appropriate solution. This could further increase, as underlined by Thierry Déau, CEO of Meridiam Infrastructure, on one condition. *"If institutional investors and financial regulators can use solid academic data relating to the investment of equity into infrastructures, we will be able to guide long-term savings in this sector. This is a key challenge for public authorities."*

These new partnerships will lead to scientific articles which are destined to be published in international economics and finance reviews. They will be further extended through academic meetings, seminars and conferences. ■

 **More information: idei.fr**



The Central Bank of Luxembourg



Gaston Reinesch, Governor of the BCL and Jean Tirole signing the partnership

Changing monetary policies

There is strong interest in economic theory among central banks. They are subsequently increasing their collaborations with renowned universities.

Central banks are therefore familiarising themselves with the most recent developments in research into macroeconomics and monetary and financial economics. This decision was taken by the BCL, which has just signed a partnership agreement with the IDEI. In May 2015, Gaston Reinesch, Governor of the BCL, and Jean Tirole, President of TSE, officially announced the creation of a chair entitled "Aggregate sustainability and central banks". By focusing on macroprudential policy and banking regulations, this partnership underlines the need for academic research in this field. "Over the past twenty years, economists have made a lot of progress to conceptualise liquidity, but their theories

need to be fine-tuned so they can be used for prudential purposes", underlines Jean Tirole. "More generally, our monetary and prudential policy deals with new challenges, from migration to new poorly regulated financial intermediaries with the introduction of virtual money".

This partnership, which involves a group of renowned researchers along with TSE's Professors Tirole and Fève, has been put in place for five years. It aims to promote high-level research on topics involving central banks. The cooperation between the two institutions involves a variety of vectors, including joint publications, tutorials, training, conferences and workshops, as well as the mutual hosting of researchers at the BCL and TSE.

The Governor of the BCL, Gaston Reinesch, demonstrated his enthusiasm during the launch of this cooperation: "We are very enthusiastic, following previous contact, to strengthen our cooperation with TSE and Jean Tirole, whose research work was awarded with the Nobel Prize for Economics in 2014, through the creation of a Central Banking Chair". ■

"We are very excited to finally formalise our cooperation with Toulouse School of Economics and Jean Tirole through a Central Bank chair."

Gaston Reinesch

The BCL

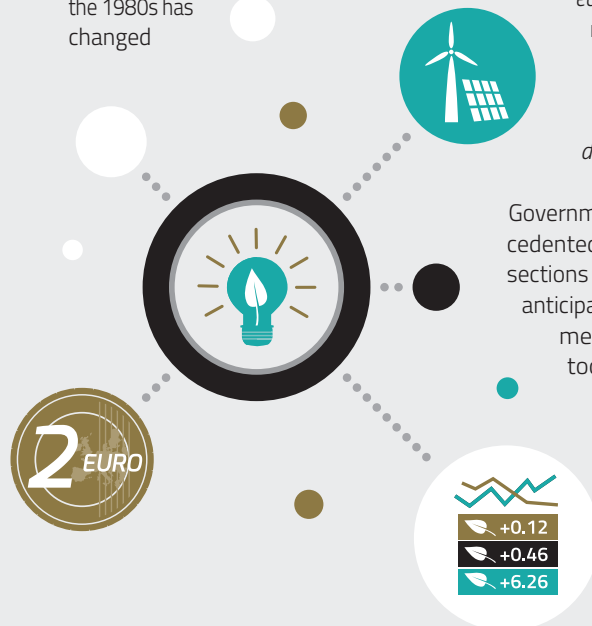
The Maastricht Treaty and the emergence of the Euro made it necessary to create a central monetary authority in Luxembourg. Created in 1998, the BCL is a member of the Eurosystem and the European System of Central Banks. The state is the sole shareholder of the BCL, which is independent. It makes a significant contribution to the Eurozone and the Grand Duchy of Luxembourg. It is specifically in charge of the following areas:

- monetary policy,
- issue of banknotes,
- financial stability,
- payment systems,
- economic analysis.

IDEI-TSE contact

Patrick Fève

tse-fr.eu/people/patrick-feve



Climate change: a mountain of an issue

In 2015, environmental concerns were at the forefront of economic debate, culminating at the COP21 climate talks held in Paris in December.

At this event, the head of the Andorran government, Antoni Martí Petit, set the tone: "If we wait to deliver solutions, it will be too late. We all need to get involved to solve the problems that affect everyone. A small country like Andorra fully understands the need to think globally and to act locally [...] Mountainous regions are particularly affected by climate change, as our ecosystems are extremely delicate." The Andorran government has also turned to TSE economists to assess the impact of its environmental policies. It is a key issue: mountain tourism is one of the pillars of the

Andorran economy - it accounts for over half of its GDP. Considering this significant tourist activity, with millions of visitors arriving by road, Andorra must attempt to preserve the quality of its landscape, water and air. In addition, in terms of energy, Andorra is strongly dependent on fossil fuels and energy imports.

In this context, Antoni Martí Petit's government has implemented measures to encourage renewable energies, approved standards relating to energy efficiency and building thermal insulation, and has institutions and teams working to implement environmental policies. How can we assess the impact of these policies? This is what the Andorran Government asks of the Toulouse economists.

It is a long term project over three years which will involve TSE researchers who specialise in environmental economics

and the assessment of public policies. They already have various partnerships with the water company Adour Garonne, Électricité de France, the French Ministry of Ecology and the Ministry for the Economy.

At the start of 2016, the Andorran government and TSE teams started to work together to identify the key issues relating to energy & climate - for example through the implementation of a CO₂ emissions permit market - and water savings. ■



Andorra

- Principality created in 780 under the reign of Charlemagne
- State: co-principality, two co-princes: the Catalan Bishop of Urgell / French head of state
- Capital: Andorra la Vella, the highest in Europe
- 468km²
- 85,000 inhabitants
- GDP (2014): €2,447 billion (estimate)
- GDP per inhabitant (2014): €34,974

IDEI-TSE contact

Nicolas Treich
tse-fr.eu/people/nicolas-treich



The future University of Herfordshire, a Meridiam project

Long-term interest

Airports, hospitals, roads, universities, solar farms... major public infrastructures transform the daily lives of the public and play a key role in financial growth.

Their characteristics - essential community services, predictable and stable incomes, controlled risks - make them a positive investment for long-term investors hoping to diversify their portfolio. This is even more the case when the facilities respond to strict environmental and societal criteria.

It was because of a strong business model placing socially responsible investment at the heart of its strategy that the company Meridiam wanted to work with IDEI, specifically to improve the understanding of the special place occupied by infrastructure projects in the global economy.

Indeed, infrastructure projects require specific skills and cause different problems which are not yet explored or dealt with by economic theory; in particular, estimating the value of these infrastructures. We know that the price of a project is equivalent to the current value of its future dividends. This formula is very

sensitive to the discount rate, where the slightest variation will have a significant impact on the asset price. It is therefore necessary to successfully anticipate and measure their structure.

"The partnership between IDEI and Meridiam will extend our understanding of the effects of the remuneration structure of funds managers."

Thierry Déau

Major shocks are a second problem. As a result, we must include catastrophic risks which could impact infrastructure and therefore income. Whilst we have enough data for risks such as earthquakes, risks linked to climate change are poorly understood to date. The rise in sea levels could be problematic for an underwater tunnel. This risk is known as a "model risk" - i.e. where the probability and scope are not known - which is an additional risk that must be modelled and introduced when calculating the initial price of a project.

The final risk which affects all major projects is changing regulations, often referred to as political risk. How can we anticipate it? How can we protect ourselves? How

Meridiam: the first independent investor in public infrastructures

Created in 2005 by **Thierry Déau**, former director of Egis at the Caisse des Dépôts, Meridiam is a French company specialising in investment and asset management for public infrastructures. Meridiam exclusively invests equity into projects which will benefit the public and are managed by public authorities:

- Transportation infrastructures: High-speed lines, tunnels, airports
- Social and educational facilities: school groups, universities, health centres, hospitals, public research centres
- Public buildings: courthouses, administrative centres, ministries
- Network service infrastructures: water, energy, telecommunications, waste management.

TO DATE: 45 PROJECTS TOTALLING €3.5BN

can we take it into consideration? The partnership between Meridiam and IDEI aims to further pursue the issue of the effects of fund manager payment structures. It is a topical subject, particularly following the financial crisis, which directly affects financial circles.

Finally, the last focus of the chair is linked to the social benefits of long-term projects and socially responsible investments.

Overall, the work carried out by the chair will help to support the implementation of new prudential rules in the financial sector, sought by governments and currently implemented by regulatory authorities. At a European level, they will contribute to the discussion initiated by the European Commission on long-term investments. ■

IDEI-TSE contact

Christian Gollier
tse-fr.eu/people/christian-gollier



Stéphane Gregoir: a new Dean for TSE

At the start of this new year, TSE is happy to welcome its new Dean. Stéphane Gregoir, an economist and statistician who graduated from the École Polytechnique and ENSAE and who holds a PhD in applied mathematics, has spent the better part of his career at the INSEE, including as Director of the CREST (Centre for Research in Economics and Statistics), then Director of methodology, international relations and coordination. He has also served as Director of Research and Dean of the Faculty at EDHEC for 7 years.

From these different experiences, Gregoir acquired theoretical, practical (quantitative measurement instruments and short-term indicators) and institutional knowledge of economics as well as a deep understanding of the academic world. Skills that he is looking forward to putting to work at TSE.

What motivated you to join the TSE team?

I was drawn to the ambitious project at Toulouse School of Economics first and foremost as a researcher, as I have had an excellent relationship with TSE researchers, who I have had the pleasure of meeting at several conferences and seminars, most organised by TSE. These relationships are naturally richest with those who spent some time at CREST.

TSE's development project is a great challenge in itself, but represents above all a way to help change how we see higher

education in France. In my opinion, this school represents a real third way, distinct from *classes préparatoires* (intensive post A-level training) for *grandes écoles* and traditional universities.

What is this third way?

In *classes préparatoires*, students learn fast while repetition and the ability to quickly summarise information are the key basis for learning. Emphasis is put on having sound working knowledge of concepts and mechanisms but not on questioning or creativity.

It is not a matter of imitating what goes on in *grandes écoles* within the university, but rather taking the best of both systems, and improving them, to create this third way. I reckon this can be achieved if we focus on creativity and mastering fundamental concepts (with more in-depth reflection). During the five years students spend at TSE, it is essential to give them the opportunity to learn to ask the right questions and the ability to think outside the box, especially through research. We have to put them in a position where they know how to adapt various tools in order to find appropriate answers or viewpoints.

What is required to meet this challenge?

We must adapt our teaching methods, which are probably still too traditional for

"It is not a matter of imitating what goes on in grandes écoles within the university, but rather taking the best of both systems, and improving them."

the new generation of students who are currently starting the first years of their degrees. The content must be adapted both to the level and the habits of today's students who are less inclined to read, have a different pace of work and life and access information in real time. The overall pace of studies must there-

fore be adapted to this new dimension of freedom and use different resources in addition to more traditional lectures. Tools like MOOCs and video lessons to recap concepts and check standard exercises are just one example.

All this obviously requires certain means and the collaboration of the teaching staff. We must also continue our efforts during the last year of degrees and masters to improve the students' understanding of their future institutional working environment by including lessons on data rights for example, so that our students know the regulations they will be faced with. Our graduates must be in touch with the components of their professional environment and any possible developments. In particular, this involves knowing which issues will emerge. Subsequently, recent research must be shown to them, not necessarily because they are going to do research, but so that they are familiar with the issues and debates that will affect their future company in the next 10 years. It helps them to make better career choices thanks to a good understanding of the issues and their alternatives.

So we can take inspiration from what *grandes écoles* do in terms of professional integration, but with an original educational approach based on the way questions are asked and the tools that should be used to find solutions.



Stéphane Gregoir

His research published in international journals mainly focuses on macroeconomics and econometrics (non-stationary time series). He also worked on a theoretical analysis of how expectations are formed and their consequences. In applied research, he developed methods for dating the economic cycle and carried out macro-econometric studies of different policies and the real estate economy.

How do you see education at TSE in the future?

I picture a school that knows how to adapt to the changing world, keeping a watchful eye on innovation and abreast with current issues, through its research and connections to economic decision makers. A school with a strong national and international reputation for the quality of its research and innovative educational methods.

What is your main focus for 2016?

We have to communicate clearly and coherently about the international masters we offer, especially about the criteria of the scholarship policy. At the same time, we must continue to implement our service offering and make sure it lives up to the students' expectations.

What is your leitmotiv, what drives you?

Many things drive me: common interest, social value, liberty, responsibility, caring for others, being aware of how your actions affect others, the intellectual pleasure of discovery, understanding complex issues and last but not least... chocolate!

To sum up, joining TSE is my way of contributing to this great collective endeavour, a wonderful challenge that everyone needs to get behind for it to be successful. It's up to me to rally the troops so that we all give our graduates every opportunity to succeed!



Stéphane Gregoir
Dean of TSE

"Recent research must be shown to students, not necessarily because they are going to do research, but so that they are familiar with the issues and debates that will affect their future company in the next 10 years."

Stéphane Gregoir, Doyen de TSE

ECO nomics & ECO logy

Interested in a career within large companies, governmental bodies, NGOs, supranational organizations, think tanks and research ?

This pluridisciplinary Master aims to solve the following challenges:

- ▶ Preserving biodiversity
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- ▶ Setting economic policies to achieve these goals



One-year advanced Master in English

Why apply?

- ➔ Innovative economics and ecology courses taught by renowned international faculty at:
 - TSE, Economics Research Center led by Jean Tirole, Nobel Prize 2014
 - SETE, Station d'écologie Théorique et Expérimentale
 - EDB, Laboratory Evolution and Biological Diversity
- ➔ Hands-on experience in the French Pyrenees, home of large-scale ecological experiments
- ➔ Interdisciplinary exchanges and focused teamwork
- ➔ Job opportunities through TSE's wide network of well-known French and international companies, organizations and alumni network

Information:

<http://ecole.tse-fr.eu/en/national-master-2/economie-et-ecologie>



Campus

ANALYSIS BY JOËL ECHEVARRIA, TSE COO

Fighting for diversity

"Anyone working in education, and the population as a whole, should be aware of the importance of diversity in higher education. Beyond the often arbitrarily maintained boundaries between Universities and the elite Grandes Ecoles, the issues surrounding the refreshment of the elite and glass ceilings deserve a reasoned debate. With the aim of finding a few practical responses, Toulouse School of Economics takes a look at this important issue."

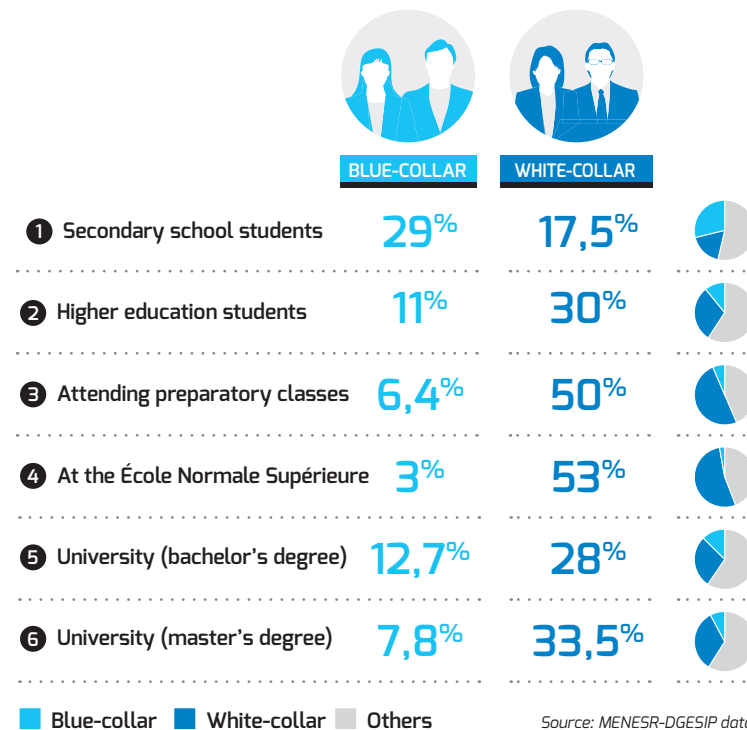
The lack of diversity in French higher education is reaching alarming levels. Official statistics reveal a shocking under-representation of working-class children and the over-representation of affluent children. This brutal rich-poor divide is even more pronounced for selective or longer studies such as CPGE preparatory classes, the grandes écoles and master's degrees. TSE has successfully fought this problem on many fronts, and its example suggests a number of practical solutions.

French universities have fallen behind. Education historian Antoine Prost has pointed out that longer studies only shift inequalities, rather than resolving them. This view has been supported by the work of the sociologist Stéphane Beaud, M Selz (CNRS-EHESS) and L-A Vallet (CNRS-INSEE) on the failure of mass education and increasing inequality at the baccalaureate level. A 2014 INSEE study found that in longer studies "affluent children" are up to 10 times more likely to be successful than "working-class children".



Joël Echevarria
TSE COO

Parents' occupations



"Causality is in the mind," says Nobel prizewinner Jim Heckman. We must be wary of overly obvious causal links. This inequality does not start at university. The French system was severely criticised by the think tank Terranova in a 2014 report, described as inefficient and a "school for the oligarchic elite". Even at the baccalaureate level, the pass rate for the "rich" is twice as high as for the "poor". For the general baccalaureate, which opens the most doors to higher education, the pass rate is 3.5 times higher.

"A reduction in social inequality through success in higher education is impossible without profound changes in primary

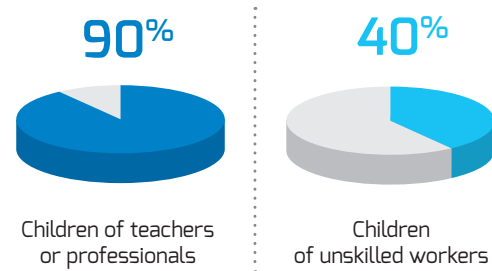


... and secondary education," a report by the Institut Montaigne said last year. "Ordering universities to fix the problem is not enough." It also criticised the hypocritical idea that students have an equal chance of success in higher education, regardless of their educational background.

"Beyond the issue of educational success, this type of segregation is regrettable at an age when students are learning about citizenship and living together."

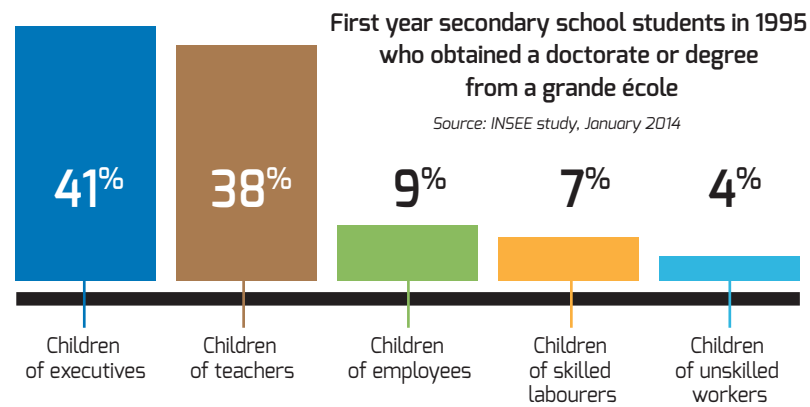
Educational segregation in secondary schools encourages self-segregation by class - the rich with the rich, the poor with the poor, good students with good students - as highlighted in a recent study by CNESCO (National Education Assessment Council): "Students develop in different environments in accordance with their social background, a situation which is likely to encourage educational inequality. Beyond the issue of educational success, this type of segregation is regrettable at an age when students are learning about citizenship and living together."

Inequalities in higher education are aggravated by avoidance strategies. France is probably unique in that a significant portion



First year secondary school students in 1995 who obtained a baccalaureate

Source: INSEE study, January 2014



of its best baccalaureate holders avoid the university system, which is legally bound to be non-selective. Universities attract just over half of general baccalaureate holders and only one in five baccalaureate holders receiving a "good" or "excellent" grade (2008 figures). Avoidance is particularly evident in the science stream, where only 6% of students who earn an "excellent" mark attend non-selective universities (excluding medicine), while 54% attend preparatory classes for the grandes écoles (CPGE). More than 36% of those who choose a university hope to be admitted to a selective stream before the end of their bachelor's degree.

French universities face two further obstacles, as described in the Institut Montaigne report: the apparent incompatibility of "university/grandes écoles" and "university/research bodies".

TSE and the ARTE initiative

The ARTE initiative is a transition year between high school and university established by the Lycée Rive Gauche, Toulouse, in 2013. This programme consists of establishing a bridge between secondary and higher education to prevent failure and promote access to longer studies. Over the course of a year, participants increase their knowledge in the areas of mathematics, economics and English - all essential subjects for those wishing to succeed in pursuing studies at TSE.

By creating TSE in 2011, the Université Toulouse Capitole and the TSE scientific community devised an original educational offer, aiming to tackle a number of the challenges outlined above by embracing attractiveness, openness and hybridisation.

"The French system is inefficient and provides a school for the oligarchic elite."

To attract the best students, TSE has built on the excellent reputation of its research team to form strong links with high schools and recent high school graduates. Resources are focused on active guidance before APB (post-baccalaureate admission) and during the first year of university. An original offer is regularly presented to educational leaders (headmasters and teachers) and joint projects have been initiated with high schools, such as the "revisited" ES stream implemented with the Lycée Pierre-Paul Riquet near Toulouse.



TSE works hard to encourage all students to demonstrate their ability. Links between high schools and the university (such as the ARTE initiative co-led with the Lycée Rive Gauche de Toulouse-Le Mirail) are under development. The first year for the bachelor's degree is largely open (more than 1,000 students in a non-selective stream out of 1,200). Each student is closely supervised and monitored. Innovative methods, such as project-based learning, have been adopted to encourage initiative and independence.

To reach across the university/grandes écoles divide and place research back at the heart of education, TSE uses a model of excellence which avoids divisive selection by academic record or competitive examination. TSE's job-focused courses

encourage integration and its tuition fees remain on par with France's low public university fees. Teachers help familiarize students with the research culture and practices required in an innovative economy. Crucially, TSE research teams are heavily involved, contributing access to international networks, cutting-edge knowledge and a passion for economics.

By refusing to select by failure, by encouraging students to try good-quality university education, by offering services worthy of the grandes écoles and by re-establishing traditional links between teaching and research, TSE is a rare and powerful cause for optimism in the struggle to promote diversity and excellence in the university community.

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TSEI digital FORUM

Changing Firms in the Digital Age

16 JUNE 2016 / 9:30 - 14:30
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- ▶ The communication revolution in firms

The debates will be followed by a networking lunch.

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- ▶ Luis Garicano (*London School of Economics*)
- ▶ Andrei Hagio (*Harvard Business School*)
- ▶ Augustin Landier (*Toulouse School of Economics*)
- ▶ Andrea Prat (*Columbia University*)
- ▶ Jean Tirole (*Toulouse School of Economics*)
- ▶ Marshall van Alstyne (*Massachusetts Institute of Technology*)



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