

THE TOULOUSE SCHOOL OF ECONOMICS MAGAZINE

TSE MAG

Living economics

Special issue

EUROPE

UNITE OR DIVIDE?

#13
SPRING
2017

Susan Athey on
the future of the
news media

Jean-Laurent
Bonnafé on the
banking industry

Takuro Yamashita
on the optimal
truth

Ana Gazmuri
on improving
education

Turning 10

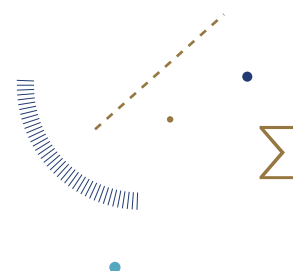
On the global economics scene, 2017 is a critical year. As the Brexit vote and Trump election after-effects play out on the world economy, France awaits its presidential elections with bated breath and Europe battles with its own identity. To economists who tend to emphasise the advantages of openness and competition, the current inward-looking and protectionist trends are a bitter pill to swallow. In this fragile "post-fact" era, the need for solid research and rational ideas is greater than ever. Economists and academics from neighbouring fields have a duty to bring scientific rigour to public debate. Such is the aim of this outreach magazine, marking TSE's determination to engage in constructive dialogue with the public.

2017 and the upcoming years will be of crucial importance for the future of the EU and its monetary union, the focus theme of this issue. Never in a generation has there been so much popular contest of the idea of European integration, and never have the centrifugal forces been stronger. This issue provides a glimpse into TSE research on key European issues, and a sample of the EU-relevant policy recommendations emerging from TSE's research pipelines.

This year also marks TSE's 10th anniversary, building on a long and unique history of economics in Toulouse sparked by Jean-Jacques Laffont's return to Toulouse from the USA in 1979. The gradual emergence over the past forty years of a world-renowned centre of excellence, crowned by the official creation of TSE ten years ago, makes us very proud. A great many individuals and institutions deserve credit and gratitude for making the TSE story possible. We hope that you will be able to join us at some point during the year as we celebrate this milestone.

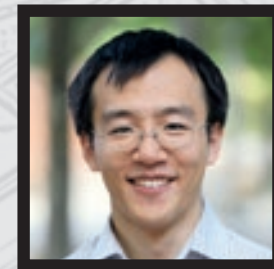
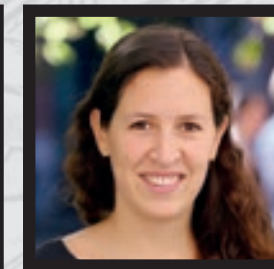
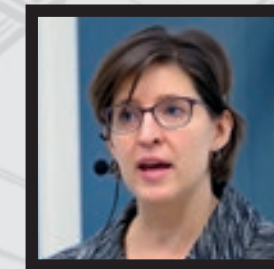
Wishing you a very enjoyable read,

Ulrich Hege, TSE Director
Jean Tirole, TSE Chairman



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Trimestrial magazine of Toulouse School of Economics
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Graphic design and layout: Yapak
Pictures: ©Studio Tchiz, ©Fotolia, ©Shutterstock, ©Istock, ©BNP Paribas

1000 magazines printed on offset paper from renewable forests. ISSN number incoming.



This magazine has been funded by a French government subsidy managed by the Agence Nationale de la Recherche under the framework of the investissements d'avenir programme reference ANR-11-LABX-0052

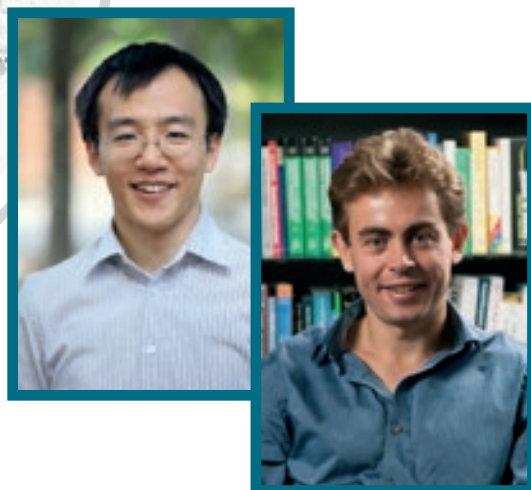
Appointments & Prizes



Takuro Yamashita and Daniel Garrett

secure European funding

TSE assistant professors Takuro Yamashita and Daniel Garrett have both been awarded Starting Grants by the European Research Council for their respective projects 'Robust Mechanism Design and Robust Prediction in Games' and 'Dynamic Mechanisms'.



Pepita Miquel-Florensa

wins award for work on Costa Rica's coffee industry

The CEPR-IMO Best Paper in Organisation Economics award honoured Rocco Macchiavello (Warwick University) and Pepita Miquel-Florensa for their article 'Vertical Integration and Relational Contracts: Evidence from Costa Rica's Coffee Chain'.



Christine Thomas-Agnan and Florent Bonneau's

article honoured

Christine Thomas-Agnan (TSE-UTC) and Florent Bonneau (University of Avignon) have won the Best Paper in Spatial Economic Analysis award from the Regional Studies Association for their article 'Measuring & Testing Spatial Mass Concentration with Micro-geographic Data'.



More information on
tse-fr.eu/people



Sylvain Chabé-Ferret's

project backed by the ANR

The Agence Nationale de la Recherche has decided to fund Sylvain's project 'Payments for Environmental Services: an Evidence-based Evaluation'. The ANR is a French institution tasked with funding scientific teams, both public and private, via short-term research contracts.



Jérôme Bolte

awarded the 2017 SIAG/Optimisation Prize

Jérôme Bolte (TSE-UT1), Shoham Sabach (Technion-Israel Institute of Technology) and Marc Teboulle (Tel Aviv University) have won the 2017 SIAG/Optimisation Prize for their article 'Proximal Alternating Linearized Minimization for Nonconvex and Nonsmooth Problems', published in *Mathematical Programming*. This prize is awarded every three years by the Society for Industrial and Applied Mathematics to the authors of the most outstanding paper, on a topic in optimisation published in a peer-reviewed journal.



Fany Declerck

appointed at the French financial markets regulator

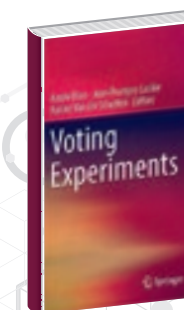
The CRM-TSE-UT1 researcher has been appointed member of the Scientific Council of the French Autorité des marchés financiers (AMF). This institution regulates participants and products in France's financial markets.



Karine Van der Straeten

published a new book: "Voting Experiments"

Andre Blais, Jean-François Laslier and Karine Van der Straeten (CNRS-IAST-TSE), published a new book assembling 16 contributions from political scientists, economists and psychologists, with the objective of offering a large perspective on experimental methods in the study of elections. 'Voting Experiments', published in October 2016 at Springer, aims at showing the wide variety of experimental methods that can be used - in the laboratory, in the field, and in surveys - to study voter behaviour but also the different strategies of parties and candidates.



Save the date

23-24
MARCH
2017

4th IAST-TSE Conference in Political Economy and Political Science

"Assessing Democratic Institutions"
Toulouse

12-13
MAY
2017

Financial Econometrics Conference

Toulouse

6-7
JUNE
2017

11th Conference on The Economics of Energy and Climate Change

Toulouse

8 JUNE
2017

TSE Digital & Energy Forum

Paris



Events by invitation only: tse-fr.eu/events

Event

JECO 2016 LYON

Launched in 2008, 'Journées de l'Économie' is one of the biggest public economic events in France. Its main mission is to bridge the gap between general audiences and the latest research in economics. Five TSE professors participated in last year's event, which gathered more than 10,000 people around the theme 'A Societal Update'. Here are the subjects of their conferences:



Panel participants 2016 Lyon
Laura Lombard
Régis Cabaret
Hélène Gauthier
Delphine La Forest
www.journéeseconomie.org

"There is a need for clearer objectives at the government level for innovation policies as well as performance indicators."



RETHINKING INNOVATION POLICIES

JEAN TIROLE

"It's clear that voting systems have a large impact on election outcomes."



IS THE VOTING SYSTEM DETERMINING THE RESULTS OF AN ELECTION?

KARINE VAN DER STRAETEN

"Daesch's strategy is to convince potential recruits to join them based on the Koran and on the credibility of the end of the world."



THE ECONOMICS OF JIHAD GROUPS

JEAN-PAUL AZAM

"Internet platforms have replaced older real-life platforms but their much larger scale brings many fundamental changes."



HOW TO DEAL WITH INTERNET PLATFORMS

JACQUES CRÉMER

"Research suggests that righteous indignation is a highly addictive recreational drug, hence the danger of policies designed to define how other people should behave."



NUDGES AS PUBLIC POLICY TOOL

PAUL SEABRIGHT



SUSAN ATHEY, STANFORD

Algorithms will run the world

Every year, the Jean-Jacques Laffont Prize rewards an internationally renowned economist whose work combines both theoretical and empirical research. Last year's recipient was Susan Athey, Economics of Technology Professor at the Stanford Graduate School of Business. Her interests range from microeconomic theory to industrial organisation and econometric methods, and her current projects focus on online advertising, media economics and machine learning.

During your TSE lecture in November, you spoke about the effects of search engines, news aggregators and social media on the news industry. How much impact do these platforms have on political outcomes?

It's pretty big. In the recent US presidential election, we could see an alignment of people's social networks with their opinions. In the 2012 presidential election, there were many educated people in cities who supported Mitt Romney

rather than Barack Obama. In the 2016 election, these people were overwhelmingly for Hillary Clinton. More than that, Clinton's supporters were very upset by the policies, opinions and values promoted by Trump.

As a result, social media feeds were very one-sided, especially for Clinton supporters. Facebook has shown what social networks look like geographically. So Californians have friends from California and also from Boston. In this election, people in Boston were a lot like people in San Francisco. Something similar probably happened with urban educated people in the Brexit referendum.

How might these political outcomes influence the reputation of platforms?

Traditionally, social networks and search engines have been very open. If you talked to a YouTube representative, he would say: "If we find someone uploading a video of a beheading, we'll take

it down. But we are not going to take down a video that is just generally racist or sexist, because we are an open platform. We want to make sure that if there is an oppressive government, people can put out a video against it. But we are not going to be in the business of making a community that has a set of predefined values."

"Ultimately, newspapers will become more consolidated to give them more bargaining power and save on fixed costs"

These 'openness' values are changing people's informativeness. The people in charge of these platforms are thinking hard about how to change the situation, but it would be a big change for them to start imposing values.

Some of my former PhD students at Facebook recently tried to demote "click-bait", releasing an algorithm to reduce the ranking of articles that had misleading headlines. However, the problem is not so much completely "fake news", but one-sided news with poor interpretation of facts. If a bunch of people want to share that information, it is very hard for a social media website to control that.

Historically, newspapers separated editorial from business and advertising. They also maintained this idea of journalistic integrity, where they gave people stuff that they didn't really want, and bundled it together with things that they did. They said: "Even though people don't like to read about Syria, we are going to tell them about Syria." Today, people can

choose article by article and see what their friends share, so it is very hard to make people read things.

What is the role of regulators regarding news aggregators?

Normally, antitrust laws would prevent collective bargaining by news organisations. However, when an aggregator or platform aggregates a large set of users, and there is a large set of relatively substitutable service providers that must go through the platform to reach the users, those service providers have basically no bargaining power. This is an example of a competitive bottleneck in a two-sided market, in which welfare would be improved if service providers can collectively bargain to reduce access fees or improve terms.

"In the near future, everybody will have introductory coding and machine learning. People who don't have these skills are in a declining industry"

For example, you can replace the stories from one newspaper with stories from other newspapers. The papers that pull out lose all their traffic without hurting Google News. So, Google says: "Well, a newspaper can always opt out" – but that is kind of an empty statement. If newspapers don't get enough advertising revenue they are not going to stay in business, or they will not have the incentives to produce quality news.

There may be policy options, like subsidising investigative reporting. For example, ProPublica's databases of US government

information make it easier for newspapers to do their research. Ultimately, newspapers will become more consolidated to give them more bargaining power and save on fixed costs.

Why do you find it interesting to do both empirical research and theory?

I was motivated to go into economics by policy problems, but during my PhD I focused on theory. Jean-Jacques Laffont had these really lovely theoretical papers about how you do empirical work. If you had a very large data set, what can be learned from it? That was what I saw Jean-Jacques do that was so inspiring. I was already doing theory of auctions, but now I could do theory of how to use auction data to answer questions. He showed me a clear path from theory to empirical work.

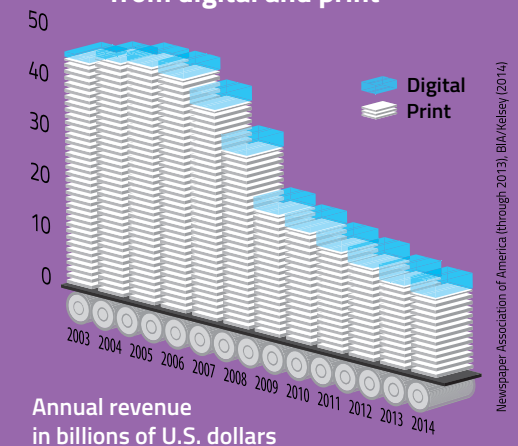
Economics and social sciences are mostly about causal inference. Machine learning hasn't focused on that as much, so now I am working on statistical theory for how you use big data to answer these types of causal questions.

You are the first female economist to win the John Bates Clark Medal. What are the challenges facing women in economics today?

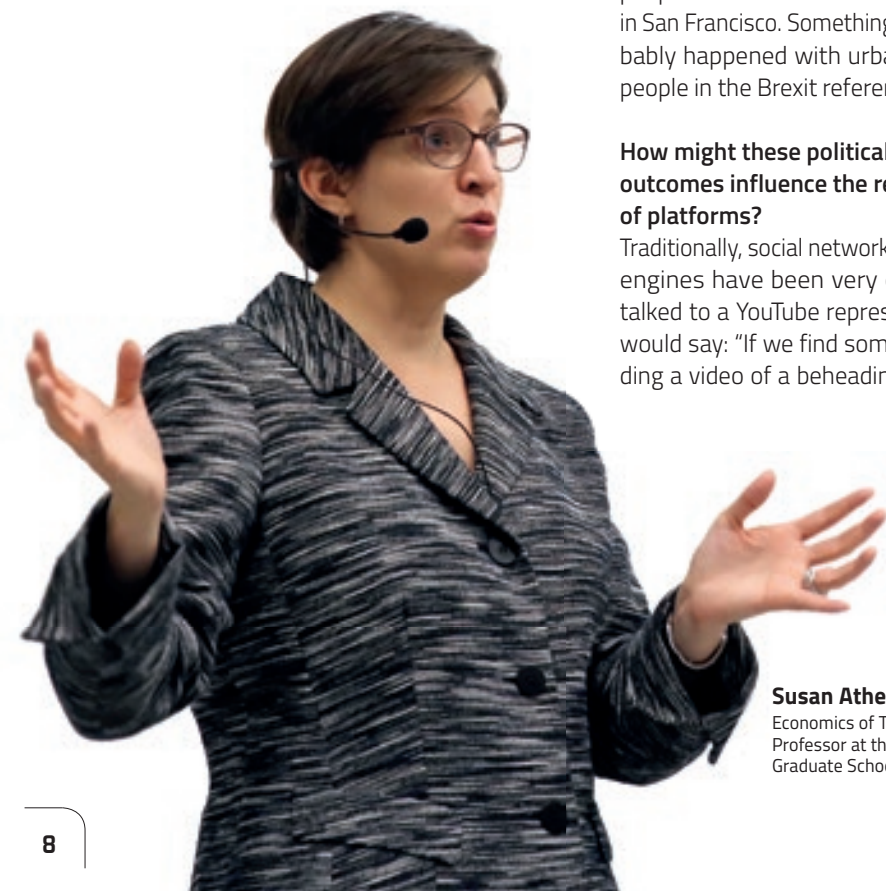
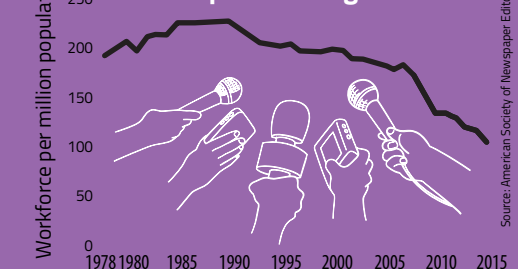
Ten years ago, I would have said that things are hardest at the beginning. Early on, when nobody knows whether you are good at things, stereotypes can matter a lot. I was trying to do very technical theory but I didn't look or talk the way people expected. People would ask: "Is she serious? She smiles too much". As I got more experienced and people got to know me, they thought less about my gender and more about my work. The more papers you have, the easier it is.



Newspaper ad revenue from digital and print



Newsroom employment is plummeting



Susan Athey
Economics of Technology
Professor at the Stanford
Graduate School of Business

...

Different problems come when you become more senior and are supposed to be a leader. You make decisions about hiring; you advise students; people listen to your leadership about where the field is going; you have evaluations and power dynamics too. In some ways, it becomes even harder to make people feel comfortable with you being a strong woman because you can't just write more papers.

I hope it changes but it's very difficult for women to be involved in conflicts and power struggles. So my depressing advice is just to stay out of it. There are so many other interesting things to do. When a government or company approaches me, they don't care if I'm purple as long as I'm giving them good advice.

I changed a lot of things at Microsoft when I was their consulting chief economist. Now I am advising start-up companies, one of them is trying to reinvent finance. I change the way money moves around the world. I am advising the US government on how to use big data. That is probably a better use of my time than worrying about university politics.

Using your expertise to change the world is incredibly powerful. When you are the best person to solve a problem, people will come to you and make the situation work. But if the battle is just about power, about whose opinion or feelings matter more, or who should get to speak in a meeting, then gender can get in the way. When given the choice, change the world through channels where you don't have to waste a lot of time fighting against gender barriers.

How is economics important for technology jobs?

Europe is behind the US in educating people for those jobs. My 10-year-old daughter has been coding in summer camp for four years. Most of upper-middle class kids in the United States will have exposure to coding in elementary school. At Stanford, we have about 1,000 people a year taking our course on machine learning.

In the near future, everybody will have introductory coding and machine learning. People who don't have these skills are in a declining industry. The good news is that if an eight-year-old can learn how

to code, you can too. You can use Khan Academy, you can use Coursera – it is all available.

I am very confident that economists will have a huge role to play in the future because we know how to use data and how to think about equilibrium, feedback effects and incentives. Those 1,000 people taking the machine learning class aren't thinking about incentives. They also aren't thinking about causal inference. They don't even necessarily think about how to use data to answer a question beyond prediction. Using data to answer questions and evaluate policies is what economics is all about.

Our world is going to be run by algorithms. We need people to understand, manage, measure, evaluate, think about and put goals on them. But economists will not have a seat at the table unless they have enough technical skills. ■

This article is brought to you by TSE student magazine TSEconomist.



Jean-Jacques Laffont Prize - 2016

ANA GAZMURI

Improving education systems

Ana Gazmuri joined TSE in September 2016 from the Wharton School, University of Pennsylvania. Before becoming an economist, she was an industrial engineer working on food microstructure. She has also worked at the World Bank on institutional investors' behaviour, trading strategies and their effect on capital market development. She is now specialised in applied microeconomics with a particular interest in education policies and education markets.

How can education systems be improved to mitigate segregation, improve access and quality? These questions are central to Ana's research. In her search for answers, she has used data from Chile for several reasons: "Chile has very reliable, openly available, data and interesting policies with implications that are relevant for many other countries."

"As long as parents keep having strong preferences for homogeneous classrooms, segregation will be a major issue"

According to the extensive literature on the subject, parental income and education are highly correlated to their child's performance. Chilean data also shows

that high-achieving, wealthier students are more likely to go to the same schools, while average or poorer students are going elsewhere. Ana tried to understand what has led to this segregation: "I study what would happen should schools be prevented from selecting students. The result is that segregation would not decrease much because parents' heterogeneous preferences is a very important factor determining their choice of a school."

"School segregation is important to decipher as it may be a key contributor to inequality in the long-run. Some studies on school desegregation plans in the U.S. have linked increased school segregation with increased criminal activity, lower educational attainment for minorities, and lower graduation rates."

The researcher suggests that obliging students to attend their nearest school



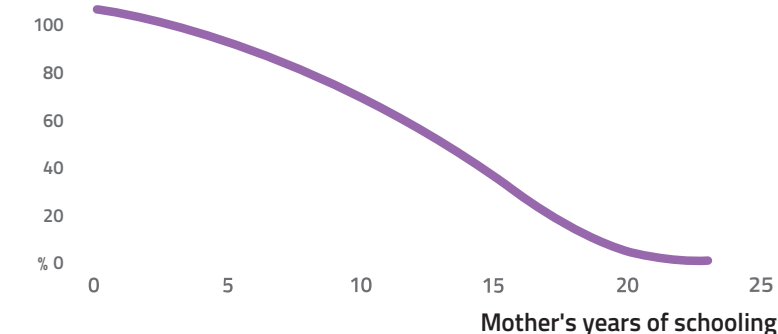
Ana Gazmuri
TSE professor

would eliminate selection by schools, but not sorting from parents, who would take this restriction into account when deciding where to live. In the long run, geographical segregation would increase while school segregation might not be impacted at all. Alternatively, if all students are not necessarily sent to their nearest school, they may be forced to attend schools that are far away or complicated to reach.

"As long as parents keep having strong preferences for homogeneous classrooms, segregation will be a major issue. One solution would be to educate parents in the value of diversity, while preventing schools from selecting students via a lottery system. Of course, this is an incredibly hard task that might take decades to come to fruition."

Ana is also working with co-authors Jean-François Houde (Cornell University College), Chao Fu (University of Wisconsin) and Paola Bordón (University of Chile) on the effect of increased competition on the college-level education

Probability of attending state school in Chile



...

market. "The idea is to study the impact of a reform in Chile giving access to students from private universities to public loans that were previously only available for public-universities." The researchers want to understand the effect of this new system on the quality of education and the number of students given access. "We don't have a final conclusion yet, as we will need more data, specifically on the labour market outcomes. One of the effects we observe is a big increase in the number of programmes offered. This increased horizontal and geographical differentiation could have positive and negative effects depending of the degree of overlap of new and existing programmes and the quality of the education offered."



Finally, Ana has begun to analyse how the choice of majors by high-school graduates responds to aggregate labor market and macroeconomic conditions along with the mechanisms that explain sorting into majors. "We have already gathered data from the state of Ontario in Canada and we'll be trying to better understand the impact of ability and choices of peers on the choice of a college major."

TAKURO YAMASHITA

The optimal truth

Takuro Yamashita is a TSE-UTC assistant professor who arrived from Stanford University in 2011. His interests lie in theoretical economics, more specifically in microeconomics and mechanism design. He recently received a Starting Grant from the European Research Council (ERC) for his project "ROBUST". Here, he tells us about his latest research.

What led you to TSE?

I did my bachelor and master's at the Hitotsubashi University before joining Stanford University for my PhD. I've always worked on mechanism design and in this field TSE is one of the leading places in the world. Scientific excellence is the main reason that led me here after my PhD and I'm very happy about my choice. I'm working within the theoretical economics research group at Toulouse School of Economics where I met many brilliant researchers.



Takuro Yamashita
TSE-UTC assistant professor

How did you get into economics?

I got interested in optimisation very early in my studies. In high school during a mathematical class about linear optimisation, the teacher said that one of the applications of this type of method was economics. He probably listed several other fields but economics is the one that caught my attention and this is when I decided to try a career in this discipline.

What can you tell us about your recent ERC grant?

First, I'd like to thank the ERC for this outstanding grant that will help to develop new research in theoretical economics. I'd also like to thank my colleagues who suggested that I apply. The project proposal contains roughly two research areas: one is robust mechanism design, the other is robust prediction in game theory. Robustness is a growing concern for economists and this project aims to propose two novel robustness-based approaches to analyse mechanism

design, as well as a novel theoretical framework to predict players' behaviour in incompletely specified games. This research could be useful in empirical studies too.

What makes a theory robust?

Every theory has to rely on assumptions, parameters and conditions to be valid but the number and amplitude of those given values can vary greatly from one theory to another. The less dependent on those assumptions, the theory is considered more robust. Robustness is very important in economics because our models and theories consider a multitude of values and parameters that can vary greatly. Economists are currently trying to make their models as robust as possible by ensuring their theories are still valid in extreme scenarios.

What does your project add to the existing literature?

There is already extensive literature in both mechanism design and game theory which plays a key role in understanding economic agents' behaviour. But trying to make the theories and models of those fields more robust is a more recent trend that this project will try to pursue.

Do you have co-authors for this project?

While I am the main investigator of this project, the research will be led with several co-authors from all around the world. I have already a list of about 10 specialists in this field, with whom I will certainly work. I will probably end up adding others as well.

"Robustness is very important in economics because our models and theories consider a multitude of values and parameters that can vary greatly"

Can you tell us about your other research projects?

I'm currently working on asymmetric information disclosure from a



mechanism-design point of view. To illustrate this topic, I usually describe a car seller who knows about several faults of the vehicle he wants to sell. How much of the information about the faults should he share with potential buyers? My model predicts that, in general, it is best to disclose all information. This is of course an oversimplified version of the study but it works well to express the issues. This project is also led with robustness in mind, and I hope to publish soon. I also have another similar working paper with Fumitoshi Moriya (Kobe City

University of Foreign Studies) in which we analyse optimal information allocation in team production (a company or a student project group).

Does your analysis imply that telling the truth is a good strategy?

Our models are purely theoretical, of course. But they tend to show that, yes, disclosing information in cooperation or in market cases can be the optimal behaviour. While we tried to make our research results as robust as possible, further research will be necessary for a more comprehensive understanding of these phenomena. I believe and hope that the analysis can serve as a useful benchmark for future research.

What do you think will be the future trends for theoretical economics?

The number of models and tools at our disposal will keep growing. They will also become increasingly complex and robust, which will greatly improve our economic predictions and analysis.

ERC-backed projects at TSE

Takuro Yamashita's project adds to the 10 other current ERC-backed projects led at TSE. Since 2011, TSE has hosted a total of 17 ERC projects, the third-highest number for a European economics institution. Of those, eight are "ERC Advanced Grants" intended for established researchers, leaders of their respective field of research, which is more than any other European economics institution.



tse-fr.eu/european-projects

Special issue

EUROPE

★UNITE OR ★DIVIDE?

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JEAN TIROLE ON THE EU PROJECT

Europe at the cross roads

In a war-torn continent, European integration gave rise to immense hope. Guarantor of liberties, the movement of people, goods and services, and capital, it was destined to prevent protectionism. Guarantor of solidarity, it was to thwart national selfishness and help poor regions develop. So what went wrong? And where do we go from here? These questions are at the heart of TSE chairman Jean Tirole's latest book, 'Economics of the Common Good'. Whether they opt for national sovereignty or federalism, he insists, Europeans cannot have their cake and eat it.

In the context of current euro-scepticism, it is worth recalling that European action has narrowed the income gap and European institutions have generally contributed to growth. The "acquis communautaire" has imposed more rigorous management on formerly dysfunctional economies, to the benefit of the public.

The euro itself represented an extraordinary symbol of European integration. Beyond the simple comfort for travellers, the single currency would eliminate the costs incurred by exchange rate volatility, promote diversification of savings and facilitate the flow of capital to southern Europe.



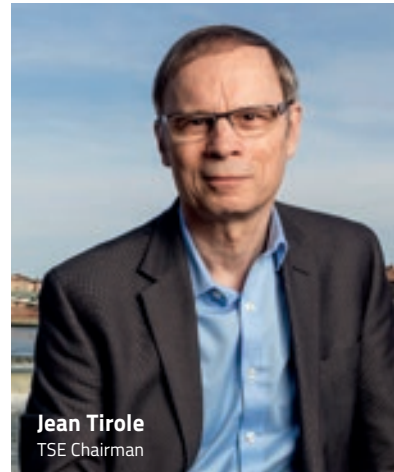
★ From hope to doubt

It was accepted at the outset that the conditions for monetary union were not ideal. Two conventional stabilisers were absent: there was no tax union to provide automatic transfers from healthy states; and workers' mobility faced cultural and linguistic barriers. The option of devaluation to boost indebted economies also became impossible.

"Like all economists, I am sorry the United Kingdom chose to leave the EU under the influence of demagogues"

Following the creation of the euro, Germany practiced wage moderation, while wages in southern Europe rose much faster than productivity, causing major trade imbalances. Meanwhile, low interest rates and lax banking supervision resulted in massive public and private debt. This combination of low competitiveness and high debt has impoverished southern Europe and now threatens the entire project.

The Maastricht Treaty is far from perfect. There are implementation and information problems, as well as issues with its one-size-fits-all approach. Strict rules and



weak application is an explosive combination, and policymakers face many challenges, including the complexity of debt measurement and surveillance.

★ Brexit blues

There are centrifugal forces – not just Brexit – but "less Europe" is not the solution. Like all economists, I am sorry the United Kingdom chose to leave the EU under the influence of demagogues on the issues of the economy and immigration. So I hope Europe and the UK will be able to prevent Brexit. In research, for example, Britain is a major scientific power and its absence will be bad both for the UK and the EU.

★ Improving Maastricht

Europe's current strategy infringes the principle of national sovereignty solely for the monitoring of debt and public deficits. In theory, it excludes bailouts. In practice, Europe has shown limited ex-post solidarity for members in difficulty. But safe countries have little incentive to provide more insurance to the riskiest countries.

Given the lack of political will to intervene in advance when rigour would be least costly, the Maastrichtian approach requires a highly professional and independent European fiscal council. This regulator would intervene on the deficit but not on how to reduce it.

"It is better to enact more reforms than opt for austerity, which could stop the economic machine altogether"

An interesting recent innovation is the introduction of independent fiscal councils in member states, useful for pointing out anomalies such as optimistic growth forecasts. Unfortunately, members are generally nationals of the country concerned. And what can be done when a country ignores council warnings?

★ Federalism

The current asymmetry between Europe's north and south is a complex problem, but it can be solved. Many countries, beginning with the US in the 18th century, have responded to local difficulties by raising the federal government's debt capacity and designing a system of systematic transfers. Rich regions are often willing to make structural payments to poor regions. But this solidarity is easier to establish in homogeneous communities that share a common language and spirit.

If the European crisis had a virtue, it was that it required the establishment of European banking regulation. Accompanied



by a European bond structure and a deposit guarantee scheme, banking union can increase risk-sharing with limited moral hazard. A common budget and shared unemployment insurance would also act as "automatic stabilisers".

★ Credible solutions

Southern Europe's problem is economic credibility and there are two solutions: austerity and reform. It is better to enact more reforms than opt for austerity, which could stop the economic machine altogether.

Properly executed, banking union could be a game changer. But the independence of

transnational supervisors has not really been tested. We must strengthen the structure and clarify certain principles. We can then establish a shared deposit guarantee scheme. This is more feasible than unemployment insurance, because deposit guarantees are already governed by shared rules.

The EU's founders had a long-term vision and could mobilise political support. For now, we are not in a position to relaunch the idea of a federal Europe, but we must keep together. To realise the European dream, we have to understand what a federation really is: we all live under one roof and we obey similar rules.

The battle of ideas

Markus Brunnermeier is a leading expert on monetary economics who visited Toulouse in September to present his theory of money and central bank intervention. Building on this research, the Princeton professor has recently published a book titled 'The Euro and the Battle of Ideas'. Despite the multiple crises currently facing the EU, he and his co-authors insist solutions are at hand. Here, TSE Mag presents some of their suggestions for bridging the Franco-German ideological rift that threatens to derail the European project.



Markus Brunnermeier
Princeton University

Markus Brunnermeier, Harold James and Jean-Pierre Landau are, respectively, a German academic economist, an English economic historian, and a French public servant and policymaker turned economics professor. Their different national origins and intellectual pedigrees inform a nuanced analysis of the long-simmering conflict between rival economic philosophies that broke into the open with the onset of the euro crisis in 2009.

Their book delineates a northern European vision of rules, rigour, and consistency, and its struggle against a southern belief in flexibility, adaptability and innovation. "The debate is not limited to French and Germans," they insist. "Finns, Austrians, and sometimes Slovaks and Poles

behave as if they are more Germanic than the Germans, and France is often seen as a champion of a Mediterranean Europe. But in practice, the clash is often treated as if it were fought out across the River Rhine."

★ The "Rhine Divide": four key differences

Differences in Europe are sometimes reduced to a simple contest between creditors and debtors. But differences in interests are often seen through the lens of ideologies.

▪ **Rules vs discretion.** German federalism requires a carefully formulated and legally binding system of rules. France's tradition of a central state means the ruler has initiative and flexibility.

▪ **Liability vs solidarity.** German tradition requires a strong principle of liability: if you are in control and break the rules, you are responsible. The tradition of the French Revolution insists on sharing the burdens of the weak.

▪ **Solvency vs liquidity.** Germans see financial difficulties as fundamental solvency issues – rescue is only possible through radical alteration of behaviour. For the French, values are subject to big fluctuations – appropriate action can resolve temporary liquidity issues and avoid long-term insolvency.

▪ **Austerity vs stimulus.** For one side, austerity provides big incentives to improve behaviour and reform institutions. For Keynesians, austerity perpetuates and exacerbates liquidity problems.

★ Brexit and the new nationalism

All of Europe is confronting the fundamental issue of democratic legitimacy. Authoritarianism, populism, separatism and fascism are back, presenting national politics as a defence against threats such as globalisation and terrorism. The Brexit vote was also a revolt against experts, including economists, by a middle and lower class that felt excluded.

"Differences in Europe are sometimes reduced to a simple contest between creditors and debtors. But differences in interests are often seen through the lens of ideologies"

★ Big-picture solutions

From Brexit to Greece, the refugee influx and the Ukraine-Russia conflict, Europe may be facing crisis overload. But many problems are best tackled as part of a giant bundle. As in international trade negotiations, countries might lose out on one issue but gain on another. For instance, Germany might pay for Southern European debt relief but benefit from a European solution to the refugee crisis. Military integration could raise the effectiveness of defence while cutting costs.



★ A union of ideas

Today, there has been progress on establishing the banking union but in significant policy areas, such as goods and services, and energy, digital and capital markets, the single market is still incomplete. To tackle this, Brunnermeier and his co-authors propose an economic ideas union. "The Spitzenkandidaten in 2014 was a first step towards a political debate union. Social media with automatic translation could create a common political space, and a framework for analysis."

★ What's the optimal balance?

How can the French and German approaches be combined? The authors suggest thinking of the provision of economic stability as an insurance contract. Extreme tail risks should be insured at the European level, while smaller risks

should be borne individually to contain moral hazard. Also, common liability must go hand in hand with common control.

▪ **Fiscal rules:** For highly indebted countries, immediate retrenchment can sacrifice growth, but lenience will undermine future credibility. Institutional arrangements and credible ex ante rules might help to overcome this dilemma. Stimulus measures should be designed so they can be easily reversed. And as structural reform begets uncertainty, it should be combined with extra government spending.

▪ **Financial stability:** A central bank should limit the moral hazard fallout of stabilisation efforts by building a prudent reputation and combining insurance with strict rules that limit risk-taking. A balanced institutional environment would not save the worst performers but a firewall protects the rest, triggering a virtuous race away from the bottom.

▪ **Banking union:** A banking charter should move all aspects of finance to the European level. In good times, tax revenue would accrue and guarantee restructuring in bad times. The principle might in the long-run be extended to a Europe-wide old age and insurance scheme.

▪ **European Safe bonds:** Designed to be a union-wide safe asset without joint liability among sovereigns, ESBies would counter cross-border capital flights and break the diabolic loop between government debt and banking risk.

★ Better together

Europe's ideological differences are not written in stone. Before the Second World War, France was the country of laissez-faire with limited government planning, while Germany had to bear arbitrary state interventions especially under the Nazis. To contain this government arbitrariness and concentration of power, Germany opted for a rule-driven framework.

Overall, balancing Franco-German differences can build more effective solutions. Well-designed insurance can help us overcome our biggest challenges, establishing the predictability essential to the complex social interactions on which the modern world is built. It is this pooling of risk that binds us together. But that mutual support can only work if it is credible and does not distort incentives. The German and French views need each other.

BRUNO BIAIS ON THE EURO

Should France leave the euro?

Should France leave the euro, it would have its own central bank, dependent on the national government instead of an independent European monetary authority. The country would therefore go back to an independent monetary policy and a national currency, the franc, instead of the euro. What would be the advantages and disadvantages of such a change? Here is a summary of the main arguments on the matter.

★ Theoretical analyses

The seminal article on the theory of optimum currency areas was published in 1961 by Robert Mundell, who received the Nobel Prize in Economics for this contribution. In this article the economist considers two regions (A and B), equipped with different production technologies. These regions are exposed to shocks on the demand for their products (for example, demand increases for the products of region A whereas it decreases for the products of region B).

To accommodate negative shock in region B, prices and salaries should go down. If nominal prices and wages are rigid, depreciation of the currency and inflation help adjust real prices.

“The move towards a single institution for the whole of the Eurozone helped establish monetary authority independence”



Facts however have shown that inflation and depreciation are not helpful in the long term.

In the light of these facts, the theory of rational expectations was developed. It shows that policies seeking to decrease real salaries by increasing inflation, are ineffective because workers, rationally expecting that inflation will reduce purchasing power, react by asking for salary increases. In this context, real salaries do not go down, whereas inflation is rampant.

The government, aware that workers' expectations cancel out the effect of its policy and to avoid an upward spiral of salaries and inflation, would want to promise not to encourage inflation. Unfortunately, it is difficult for a government to keep its promises...

Analysing these problems of government commitment, Kydland and Prescott, particularly in their 1977 article (which won them the Nobel Prize), show that it is better for the government to give up

its monetary authority voluntarily and hand it over to an independent central bank. The latter can undertake to follow a clear policy and so avoid workers having inflationary expectations.

★ The current situation in France and Europe

Kydland and Prescott's theory sets out the need for an independent central bank. The move towards a single institution for the whole of the Eurozone helped establish monetary authority independence.

“In fact we are already seeing an upward trend in French interest rates relative to those of other countries”

It thereby created a stable monetary environment, facilitating the coordination of workers' expectations and enabling them to draw up long-term plans. In fact, the euro reduced the exchange-rate risk for companies and, of course, cancelled it out within the Eurozone, which represents most of our external trade. Lastly, it helped to reduce interest rates, which benefits companies by reducing their financing costs.

However, since different European countries are exposed to different shocks, the eurozone is not an "optimal currency area". Should the euro be abolished and monetary authorities and national currencies restored? This is far from being the case, for several reasons.

Leaving the Eurozone would lead to a "bank run" risk: depositors, fearing a fall in the value of their monetary assets (linked to their conversion into French francs worth less than the euro), would be tempted to withdraw their deposits from French banks to convert them into real assets or foreign currencies. This would weaken the banks and could push them to the edge of bankruptcy.

Furthermore, government, bank and company debt would be very cumbersome to adjust in devalued francs. This would take a heavy toll on the government's budget deficit and on the financial health of companies. This could result in situations of default, damaging to the stability and credibility of companies, banks and the government.

Additionally, depreciation of the national currency would lead to the cost of imported goods rising, which would lower the purchasing power of households and increase business costs. Moreover, it would be followed by high volatility in the exchange rate of the national currency and therefore an increase in the exchange-rate risk for companies. All of this would create a difficult and costly



Leaving the euro would clearly be very damaging for the French economy



environment for international companies (imagine, for example, the consequences of such a situation for a company like Airbus). Lastly, a return to inflation would reduce the purchasing power of pensioners, whose nominal income is fixed.

Fearing the control of capital flows, the inflationary risk and the high risk of default, foreign investors would be reluctant to make commitments in France. To purchase bonds issued by banks and the government, as well as shares issued by companies, they would require high interest rates. (In fact we are already seeing an upward trend in French interest rates relative to those of other countries.) This would result in an increase in the debt burden for the government and for companies alike. Such an increase would have a negative effect on the government's ability to balance its budget and on that of companies to invest.

★ Conclusion

Leaving the euro would clearly be very damaging to the French economy. Of course, this does not mean that the European structure is perfect. The functioning of its institutions could clearly be improved and it is necessary to undertake a discussion and reforms to address the many problems encountered. However, it is important to distinguish the various aspects of the European issue: confusion can only lead to poor decisions.





TSE FACULTY IDEAS

A better Europe

As this special dossier shows, the European project has never been more urgently in need of creative thinking and rigorous scientific analysis. Here, we present a snapshot of TSE researchers' work on several European issues.

COMPETITION

Is private litigation to be encouraged?

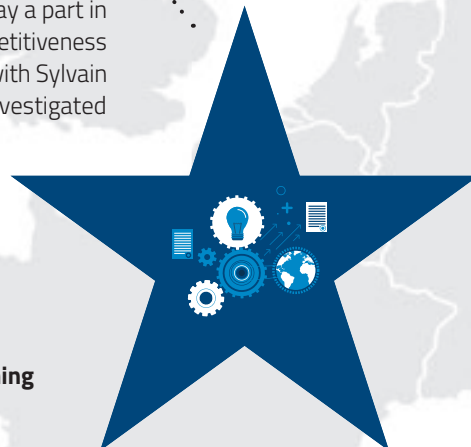
Patrick Rey & Paul Seabright

The EU expects that inducing private parties to play a part in antitrust enforcement will enhance Europe's competitiveness and encourage companies to innovate. Together with Sylvain Bourjade, Paul Seabright and Patrick Rey have investigated whether this expectation is realistic by modelling the effect of encouraging private actions for breaches of competition law. He has also studied the optimal design of rules for private litigation.



Find out more:

See Paul and Patrick's paper, **Private antitrust enforcement in the presence of pre-trial bargaining**



TRANSPORT

How should we develop international railways?

Marc Ivaldi

Using the EU rail system as a framework, Marc has analysed various options for the organisation of the railway industry when network operators require access to multiple national networks to provide international transport. Returns-to-scale and the intensity of competition are key to understanding the impact of vertical integration or separation between infrastructure and operation services within each country in the presence of international transport services. His model suggests that an optimal industry structure is for a transnational infrastructure manager to offer coordinated access to national networks.



Find out more:

See Marc's paper, **Separation versus Integration in International Rail Markets**



ENVIRONMENT

Has emissions trading worked?

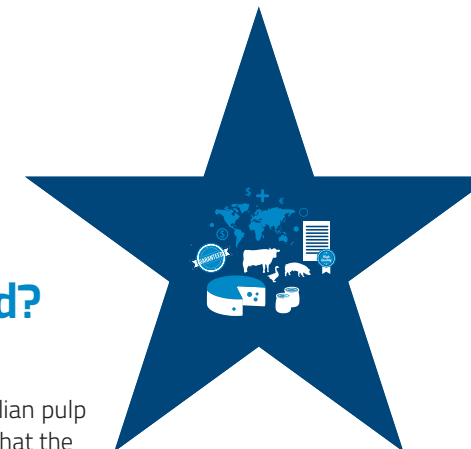
Giulia Pavan

Giulia's research on the Italian pulp and paper industry shows that the first phase of EU Emission Trading System has led to a limited reduction in both emissions and emission intensity due to a shift in production towards products that cause less emissions. Technological improvement has only occurred in the second phase. However, the main driver of CO2 emission reduction has been an overall decrease in output.



Find out more:

See Giulia's paper, **The EU Emission Trading System and technological change**



FOOD

Do quality labels help producers?

Zohra Bouamra-Mechemache

EU regulation on quality food products is expected to sustain competitiveness within the agricultural sector. Zohra has examined the impact of the AOC policy (protected designations of origin labelling) on the survival of cheese firms in France from 1990 to 2006. She shows that such a policy reduces exiting risk for smaller firms. However, smaller firms still have a lower survival rate compared with larger ones that cannot be compensated by the quality label effect.



Find out more:

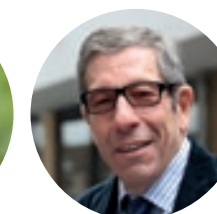
See Zohra's paper, **Quality Labels and Firm Survival**



Zohra Bouamra-Mechemache



Ulrich Hege



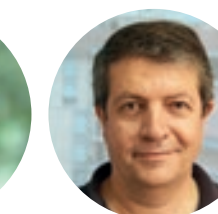
Marc Ivaldi



Giulia Pavan



Paul Seabright



Patrick Rey

FINANCE

Europe's venture capitalists lag behind

Ulrich Hege

Ulrich was among the first to document that venture capital investments in Europe generate significantly less value than venture capital in the US, a finding that other studies have confirmed since. The origins of the performance gap presumably run deep: Ulrich finds that they cannot be attributed to legal origin or to differences in know-how of venture capitalists since US venture funds investing in Europe do not perform better their European peers. On the other hand, differences in contracting behaviour, such as staging frequency and syndication, may help to explain part of the performance gap, offering clues about the importance of the institutional set-up in the financing of innovative start-ups.



Find out more:

See Ulrich's paper, **Venture Capital Performance**



The challenges of better research

TSE's Marc Ivaldi is the coordinator and executive committee chairman of the COEURE project, which aims to promote European research cooperation in economics. In October in Brussels, he presented a 'Manifesto for Economic Research in Europe' at the project's final conference. Here, the researcher offers a summary of the report's key recommendations.

During the 1970s and 80s there was considerable alarm in Europe at the academic brain drain to the US. Today, the good news is that 40% of the world's top quartile of economics departments are located in Europe. This is largely thanks to innovative clustering, a critical mass of scale, and the evolution of national and European funding opportunities.

We believe that to further establish Europe as a leader in economics research, institutions need to foster long-term research capacity. To continue to catch up with the US, economic research in Europe must address the long list of policy challenges, open research questions and society's growing demand for economic analysis and knowledge. Technical tools and databases must be developed, and research career paths strengthened.

Data is becoming more and more crucial to the good development of economic

research and Europe needs better, more available databases. Institution should allow access to data produced during implementation of legislation, introduce mandates for statistical agencies to service researchers, offer research training, legal advice on NDAs, and a secure IT infrastructure. Data should also be more harmonised throughout the European Union as collection is still predominantly organised at the national level, whereas firms often operate across borders and through subsidiaries. Funding should be used to support diversity and specificity of data, ensuring stability for longitudinal datasets.

Another key recommendation is to keep encouraging researchers to explain and detail their work to general audiences. Regular research workshops should be accompanied by policy reports in which institutional funders could act as mediators. Public lectures, social media and

"Today, the good news is that 40% of the world's top quartile of economics departments are located in Europe"

economics fairs should all be encouraged while teaching of economics and statistics should be promoted.

Finally, institutions need to ensure steady and long-term funding. To succeed, they should identify inefficiencies and stimulate innovation. Among the possible solutions could be the creation of a funders' forum, increasing the role of ERC, sustaining the COEURE funding database, reducing administrative burden, or providing an industry standard for ethics approval.

To conclude, Europe, to further its excellence in economic research, needs to plan for the long-term, develop better databases, encourage researchers to do outreach and to secure long-term funding.



Key questions that European researchers should be addressing in the coming years:

How can we promote innovation by firms and entrepreneurs?

What are the effects of labour regulations, contracts and taxes on productivity and human capital, as well as technological choice and innovation?

What are the determinants of permanent migration?

Who are globalisation's winners and losers?

What explains education inequalities?

What determines school and teacher effectiveness?

How do we calculate redistributive effects and the tax equivalent of regulatory and information frictions?

How does digitalisation impact empirical methods, innovation, the single market objective and competition policy?

How can integration cope with mobility and migration?

How do economic growth, environmental degradation and protection impact each other?

How can agglomerations drive growth and social cohesion?

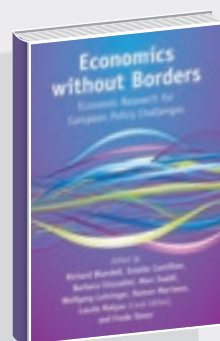
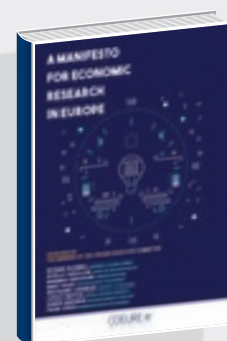
How do we coordinate intervention policies and optimise regulation?

What is the impact of fiscal policy on households and firms, expectations, inequality and social unrest?

What is the impact of closer trade links and new infrastructure projects?

What do we mean by equality of opportunity?

COEURE has been financed by the European Commission within the Seventh Framework Programme.



Find out more:

- Read the full Manifesto for Economic Research in Europe: www.coeure.eu
- Marc Ivaldi's book *Economics without Borders, Economic Research for European Policy Challenges* (CUP) will be soon published.

JEAN-LAURENT BONNAFÉ CHIEF EXECUTIVE OFFICER, BNP PARIBAS

The main trends of the banking industry

How has BNP Paribas been able to adapt to changes in the banking sector since 2008—the start of the financial crisis—followed by the sovereign debt crisis in Europe?

BNP Paribas has a long history of adapting to change to serve its customers as best as possible.

Thanks to our careful risk-management, we entered the 2008 crisis in a relatively healthy position. We had limited exposure to the U.S. sub-prime market. Our diversified business model enabled us to withstand relatively well the market turbulence resulting from the systemic crisis. We then quickly adapted to the new regulatory framework which emerged from the crisis. We doubled our capital, complied rapidly with new liquidity coverage ratio requirements, optimised our balance sheet and implemented measures to satisfy the new regulations.

During this period of instability we acquired Fortis, which confirmed our position as the leading eurozone bank and we retained our model of a balance between retail banking, specialised financial services and capital-markets activities.

When the European sovereign debt crisis hit in 2011 we reduced our balance sheet and disposed of non-strategic activities in order to re-establish confidence in our sound economics. This particularly violent crisis led to the creation of the Single Supervision Mechanism for the eurozone at ECB level. This represents a huge leap forwards in terms of equipping the eurozone with a single framework for carrying out banking activities aimed at financing individuals and businesses.

I cannot forget to mention the 2014 American fine. There too, the Group showed its resilience and responsiveness in implementing the remediation plan agreed upon with the U.S. authorities.

“BNP Paribas has a long history of adapting to change to serve its customers as best as possible”

Overall, the Group has clearly been able to adapt to change and came out of it stronger.

Are the reforms of the financial sector now complete?

It was necessary to reform the financial sector to restore financial stability. The new capital and liquidity requirements as well as the global strengthening of controls for banking activities were very costly for the banking sector, but they were justified. These reforms mainly focused on banks, particularly large banks of systemic importance.

I believe that in any reform of this type, it is important to find the right balance between strengthening financial stability and encouraging growth. The banking sector, particularly in Europe where the economy relies mostly on banking intermediation, plays a decisive role in providing finance to individuals and businesses. Raising prudential measures too much increases the cost of banking which weighs on growth but brings limited, marginal benefits regarding financial stability. I believe the reform of the banking sector has been achieved. Now it needs to be implemented. The banking sector as a whole has still not absorbed the costs of Basel III and other regulations: it would be very premature and harmful to growth, in particular European growth, to tighten prudential requirements further.

What are the current strategic or technological challenges for BNP Paribas and the banking industry?

The banking industry is indeed facing a number of challenges. A difficult environment generally, and low rates in particular, are pushing down profitability. In this context, the banking industry must undergo a digital transformation, just like other industries.

Faced with these challenges, BNP Paribas is well positioned. We do not have legacy issues to deal with, unlike certain competitors. This allows us to focus our energy on these new challenges. Our integrated and diversified model represents a major strength. Our customers appreciate our capacity to offer them the full range of services they need to achieve their goals. Few banks have kept this ability.



Our performance for 2016, with a Group net income of €7.7 billion, up by 15% on 2015, speaks for our good position.

This is not to say that we should rest on our laurels. We need to review our operational model to meet new digital standards and respond better to the new needs of our clients. This digital transformation is at the heart of our new, recently-announced 2020 Business Development Plan. We will build on existing innovation initiatives and invest almost €3 billion over the course of the Plan in digital

“Economic research is a source of independent information and essential expertise”

transformation and operational-efficiency projects. Our five main pillars of transformation are: reinvent “customer journeys”; reshape our operating model based on optimised and automated end-to-end processes; adapt and strengthen our IT systems; enhance data management for the benefit of our customers; and finally, rethink how we work.

Through this digital transformation, our ambition is to build on our integrated and diversified model so as to be the bank recommended by our customers and be an attractive workplace, particularly for younger generations. ...



Jean-Laurent Bonnafé
Chief Executive Officer,
BNP Paribas

...

What's your assessment of current macro-economic challenges?

The economic outlook is better than what most people believe. The world economy is doing better thanks to a convergence of factors. These include efforts to reinvigorate the Chinese economy, an increase in oil prices and the hope that the American fiscal stimulus will boost growth. The eurozone is also doing better.

From a structural perspective, significant macro-economic challenges remain. These include ageing populations, which are slowing growth in a structural sense. Unemployment rates remain high in certain economies, particularly for young people. And the level of public-sector debt in a large number of countries, in conjunction with low interest rates, all mean there is limited room for manoeuvre in terms of stimulating the economy. A certain number of geo-political risks also persist.

"Our ambition is to build on our integrated and diversified model, to be the bank recommended by its customers, and be an attractive workplace, particularly for younger generations"

We have based our 2020 Business Development Plan on cautious macro-economic assumptions but better-case scenarios are possible.

What are the main challenges for eurozone banks, particularly in relation to the Banking Union?

The 2011 European sovereign debt crisis paved the way for further integration of the economic and Monetary Union. The Banking Union project, which was

launched in summer 2012, is one of the most decisive stages in Europe's financial integration since the euro was created in 1999. It is a major step towards a more unified and solid European banking market.

The Banking Union has progressively grown in importance since it was introduced in November 2014. The Single Supervision Mechanism (SSM) makes the ECB responsible for monitoring the 127 largest European banks. Through the Supervisory Review Evaluation Process (SREP), the ECB may impose requirements upon a bank in addition to those stipulated by regulations. There are significant costs to banks adapting to this new supervisory framework, both in terms of new prudential requirements set by the ECB, new IT and reporting systems, and appropriate staffing.

But the implementation of the SSM is contributing to strengthening financial stability in Europe. The Asset Quality Review (AQR) and stress tests carried out by the ECB and the European Banking Authority (EBA) in the context of implementing the Banking Union revealed a pretty reassuring picture of the state of banks in the European Union, while highlighting the weakness of a few banks and the need to find an effective solution to the problem of bad debts in Italy. The last ECB/EBA stress tests, in July 2016, also showed an improvement in the health of the 51 largest banking groups in Europe.

The task at hand is to complete the work on stabilising the European banking sector and on making the eurozone a truly integrated area where bank financing can flow freely within a single regulatory framework.



Are there risks to the 'European project' from the perspective of banks, and do you have any recommendations for European policy?

I would like to emphasise the huge steps forward which have been taken by Economic and Monetary Union (EMU) to overcome the sovereign debt crisis. The European Stability Mechanism (ESM) is designed to provide financial support to countries in difficulty. It is a unique solidarity mechanism between member states and it contributed significantly to restoring confidence in the eurozone.



In exchange, the new European budgetary pact ensures that the budgetary "golden rule" will be respected so that countries adhere to the same budgetary discipline, both in terms of deficits and public debts. The Banking Union is the third pillar of the EMU.

These seemingly technical mechanisms represent major steps forward in strengthening the integration of the eurozone. They equip it with enhanced crisis-management capacities and create a favourable environment for economic and budgetary integration between member states.

As emphasised by the five European presidents in the June 2015 report Towards a Genuine Economic and Monetary Union, the European project is akin to a house whose walls and roof have been quickly reinforced to withstand a storm. Now, however, it is time to turn to the foundations and consolidate them too. France and Germany have an extremely important role to play in this respect.

Many areas of action are possible: security, defence, research and innovation, infrastructure, etc. Within the banking sector, it seems to me that fully implementing the single market and the Banking Union are part of the foundations that must be consolidated. The Capital Markets Union project is also a fantastic opportunity to develop market financing to the benefit of European innovation and growth.

What does research into economics represent for BNP Paribas?

Economic research is a source of independent information and essential expertise for BNP Paribas. It enables us to better understand the economic climate of the countries where we do business. It provides us with essential parameters for analysing and managing risk. It also helps us to better serve our customers by enabling us to advise them and help them realise their projects.

...



...

What do you believe is the role of an institution such as TSE?

An institution such as TSE has a vital role in developing top economists, in both its undergraduate and its postgraduate programmes. It is vital for France to remain a world-class centre of academic excellence. It is an important factor in economic competitiveness.

Academic research, through its independence and rigour, makes essential contributions to economic life and to public debate. It reveals or highlights economic issues and developments and it documents them. But it also provides in-depth or new explanations for these issues and developments, and sometimes suggests solutions to them.

When you need to take action quickly, you do not always have the time to step back or look at a situation differently as a researcher might do. Both fundamental and applied research play a key role in developing knowledge and fostering innovation to the benefit of all players in the economy.

What advice would you give to a young economist studying at TSE or elsewhere who is interested in finance?

Finance is a fascinating area. It interacts directly with all participants to the world economy and it is constantly reinventing itself to help these participants achieve their ambitions: buying a house, setting



up a business, moving abroad, developing new services, etc. That is why it is a competitive sector which is a source of excellence and which continues to attract talent.

I would tell this young economist that their domain will be particularly interesting over the coming years with the digital transformation of the banking sector. It will lead to a great deal of innovation in financial services.



I would also tell them to take a look at what financial institutions are doing in terms of Corporate and Social Responsibility (CSR). The industry received a lot of criticism after the 2008 crisis and financial institutions made major efforts to rebuild their image. BNP Paribas has an ambitious CSR programme, which has earned us the top spot in Vigéo's extra-financial rankings in 2017. ■

IS A FEDERAL EUROPE THE WAY FORWARD?

GIVE YOUR OPINION ON [DEBATE.TSE-FR.EU/POLL](https://debate.tse-fr.eu/poll)



RECENT POLL RESULTS FROM TSE DEBATE:

52%

had anticipated the COP21 agreement

71%

don't see "uberisation" as an economic threat

68%

don't believe intelligent software and robots will create mass unemployment

59%

think economic growth is not necessary to eliminate extreme poverty

debate.tse-fr.eu



European focus, global careers

TSE prides itself on being a truly cosmopolitan school: almost half of our students come from 90 different countries worldwide, our courses are taught in English by renowned international faculty and lead to a growing range of career options in both private and public economics around the world.

We are particularly proud of our European network with global outreach and impact. Here, several of our Europe-based international advocates describe the "TSE fit":



NERA Economic Consulting

> LONDON, UK

EMMA CAIRNS
- RECRUITMENT MANAGER

TSE students specialise in particular areas such as industrial organisation and environmental economics, a great fit for the practice areas we are recruiting for.



AlixPartners

> LONDON, UK

TOMAS HOUSKA - ECONOMIST

TSE works closely with firms and businesses to help prepare students for their careers. I spent two years at TSE during my PhD studying industrial organisation and I know that students, especially in the Masters programme, are very well suited to take on jobs in consulting.



CACEIS Investor Services

> LUXEMBOURG, LUXEMBOURG

WILLIAM PLANTADE
- HR OFFICER

We have recruited several TSE students whose technical skills and knowledge are very much appreciated. We are constantly looking for people with quantitative knowledge on financial products and digital skills, and TSE students are a perfect match for that description.



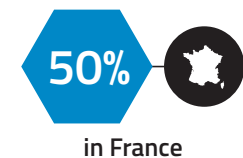
European Commission

> BRUSSELS, BELGIUM

GERGELY DOBOS - CASE HANDLER

The doctoral program at TSE provided a solid base to my professional development in the field of competition policy and regulation. Industrial economics as taught at TSE provide a robust framework to understand how markets work, including extensions to novel applications such as platforms. The competition policy workshops held by TSE professors are unique and extremely motivating opportunities to learn from the very best in the field.

Where are TSE graduates working:



Pierre Fabre

> CASTRES, FRANCE

CATHERINE GAY - MARKETING AND SUPPLY CHAIN DIRECTOR

TSE students are particularly interesting because of their multicultural profiles. They usually speak several languages and have spent time abroad either within a company or a university. They are very well prepared to professional careers.



Airbus

> TOULOUSE, FRANCE

FABRICE BRÉGIER - CEO

Several former TSE students have joined us and we're very proud of our partnership. We have fascinating jobs to offer in finance or strategy, as well as in data sciences, where the analytical capabilities of TSE grads are a clear asset.



OECD

> PARIS, FRANCE

MIGUEL CÁRDENAS RODRÍGUEZ
- STATISTICIAN

There aren't many masters in environmental economics as good as the ones from TSE, the students have solid background and fit well in international organisations. From our experience, TSE students perform outstandingly well.

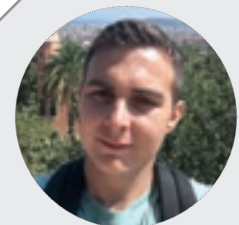


EDF GROUP

> TOULOUSE, FRANCE

ANNE-LYSE QUATORZE - HR MANAGER

We rely on TSE professors for economic views on our core activities and we are increasingly relying on TSE students as well. The EDF group seeks talented people with knowledge of electricity markets able to work with big data on clients, production, network equilibrium... TSE students have all these qualities and their strong interest in topics such as the evolution of electricity markets and energy transition is a definitive asset.



Dual degrees in Europe

TSE's dual degree with Pompeu Fabra is one of the best experiences I've had as a student, allowing me to learn and thrive in an international, foreign environment at one of the most renowned economics department in Europe. TSE offers high-level courses of economics but also a complete international immersion. This year in Barcelona has been the crowning moment of that immersion. **Fabien Vigie**



60% of our alumni working in France use a second language in their job



50% of our alumni working in France travel abroad for work

Decoding EU competition policy at TSE

What do issues such as the Apple tax dispute, the Intel loyalty rebates and the MasterCard interchange fees have in common? These are all recent real-world competition law cases dealt with by the European Commission and reviewed by the TSE students enrolled in our Masters-level workshop on the law and economics of competition policy.

This hands-on workshop, led by three of TSE's leading international faculty in competition economics, Bruno Jullien, Yassine Lefouili and Patrick Rey, confronts actual competition cases with the economic analysis provided by industrial organisation theory. The aim is to lead students to better understand competition policies, focusing on case studies and offering them both academic and professional points of view on the subject from world-renowned experts.

"Combining the economics knowledge of TSE faculty members and the first-hand experience of top practitioners presenting cases they have been involved in is something quite exceptional in terms of teaching"

Yassine Lefouili, TSE-UTC Professor

The workshop's organisers are particularly equipped to explain in detail these cases thanks to their regular contact with the regulators. Patrick Rey and Bruno Jullien are both members of the Economic Advisory Group on Competition Policy, a committee supporting the EU Directorate-General for Competition in improving the economic reasoning in competition policy analysis.

In addition to the regular workshop sessions, special seminars are given throughout the year by top competition policy practitioners (lawyers, economic consultants, competition authority staff, etc). These speakers come regularly to TSE to present specific cases and exchange with the students on the best way to understand and react to different situations. For example, Cani Fernandez, partner at the EU-specialised law firm CuatreCasas, and Jorge Padilla, European head of the consulting firm Compass Lexecon, have recently presented students their take on the Apple tax case, when the EU ordered the world's largest company to pay a record-breaking €13bn to Ireland in back taxes. The Intel case was also similarly detailed in class.

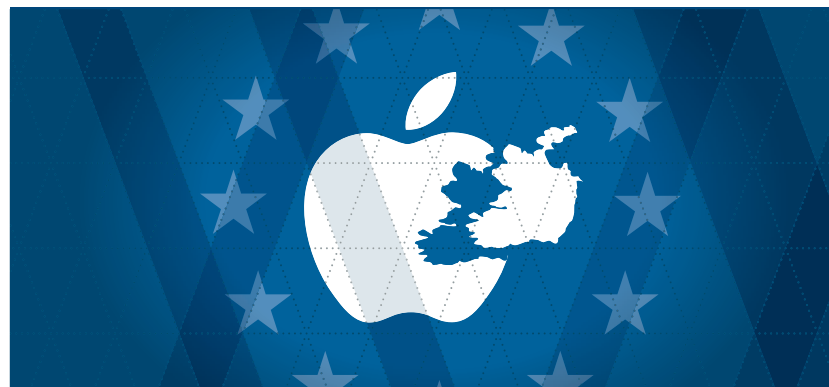
The workshop students themselves are expected to present a US or EU competition case and confront the arguments

"Empirical studies and practitioners' experiences are key for top research in this field"

Patrick Rey, TSE-UTC Professor

used by the competition authority and the firm(s) involved in the case with IO theory, analysing the case in small groups and presenting key conclusions.

Career-wise, the knowledge and methodology developed by the workshop's students can be applied within international firms and institutions. Gergely Dobos, TSE alumni who obtained his PhD here in 2004, today works at the European Commission as a case handler and speaks highly of the workshop for a competition authority career: "my number one career tip for TSE students specialising in competition economics is to attend the competition policy workshops; they are one of a kind and motivate for the long term."



The EU ordered the world's largest company to pay a record-breaking €13bn to Ireland in back taxes.



TSE

Graduation Ceremony



Fabrice Brégier
Airbus CEO

The third TSE Graduation Ceremony took place in November in the presence of Jean Tirole, Stéphane Gregoir and University President Corinne Mascala. The class of 2016 had the honour of being supported by Airbus CEO Fabrice Brégier, who delivered an inspiring speech based on his own career and personal experience. He underlined the importance of teamwork, simplicity, speed and adaptation:

"You will benefit from the academic rigour of your degree throughout your career, keep taking every opportunity to develop your knowledge. I wish you all the best of luck for the future, what a fascinating time to be an economist. Your skills have never been so vital and I hope that some of you will choose to work in the industry, and, why not, at Airbus. Congratulations and all the best for your future."

TOULOUSE SCHOOL OF ECONOMICS PRESENTS

TSE FORUM digital & energy

8 JUNE 2017

9:30 - 18:30

PALAIS BRONGNIART
PARIS

Bringing together world-class economists and high-level decision makers to debate the latest digital and energy issues, in the presence of Jean Tirole.

DIGITAL FORUM: 9:30 - 12:00

- La révolution des plateformes et l'impact sur la concurrence

Key speakers:

- Alexandre de Cornière (TSE)
- Jacques Crémer (TSE)
- Pierrick Lemasne (ACCOR)
- Frédéric Mazzella (Blablacar)
- Fleur Pellerin (Korelya Capital)*

*à confirmer

! THE MORNING WILL BE HELD IN FRENCH

ENERGY FORUM: 14:00 - 17:30

- Energy markets: transition, development and organisation

Key speakers:

- Isabelle Kocher (Engie)
- Jean Bernard Lévy (EDF)
- Philippe Sauquet (Total)
- Richard L. Schmalensee (MIT)
- Catherine Wolfram (Energy Institute at Haas)

INVITATION ONLY

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