

THE TOULOUSE SCHOOL OF ECONOMICS MAGAZINE

TSE MAG

Living economics

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Special Issue
COP21

Piketty, university admissions and the future of medicine

Ownership structures and level of risk

La Poste: through the changes

Dear Friends,
The United Nations climate conference (COP21) that will be held in December in Paris is an historic occasion. It is an opportunity for humanity to take charge of its destiny, and at this crucial juncture, we economists must share the results of our research on these issues and suggest possible solutions. In this magazine, you will therefore find a dedicated section featuring opinion pieces by several TSE researchers and a manifesto signed by more than 200 economists from all over the world. Climate change is an obstacle that human-kind must overcome and, in our humble way, we have to do our best to contribute to the debate.



This edition will of course also give you a in-depth look at the diversity of the TSE researchers. TSE economists work on many different subjects, exchange with international researchers and regularly pave the way to new scientific discoveries.

Christian Gollier was not here to help me write this editorial as he recently completed his term as TSE Director. He is now at the University of Columbia (New York) for a sabbatical year as a guest lecturer. We commend the work he has done in this position and we are fully confident of his successor's abilities. First of all, Patrick Rey, long-time researcher at TSE, will ensure the interim until the 1 January 2016 when the new TSE Director, Ulrich Hege, will assume his duties. It is important that the Management of the Toulouse School of Economics is regularly renewed, as each new arrival gives a new boost of energy to our establishment. I have full faith in Patrick Rey and Ulrich Hege to carry out their mission: further reinforce academic and teaching excellence at TSE and work to ensure the durability of its original model. Other evolutions, projects and talents will arise in the coming months to strengthen the TSE community and I am confident in our ability to promote academic excellence and overcome any obstacles that our institution may encounter.

Enjoy your read,
Jean Tirole, *Chairman - Toulouse School of Economics*



The 21st United Nations Conference on Climate Change (COP21/CMP11) will take place in Paris from 30 November to 11 December 2015.

News & Events

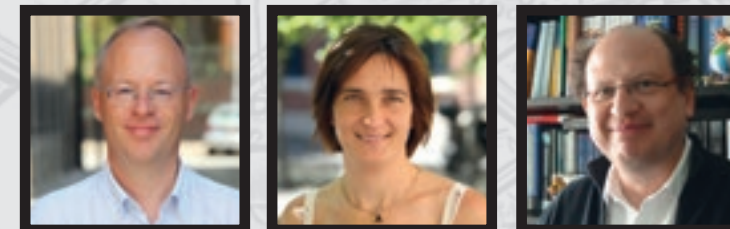
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Christian Hellwig

nominated at the French Academic Institut (IUF)

Directly appointed by the French Minister of Education and Research, Christian Hellwig, researcher at TSE is nominated as junior member of the IUF starting 1 October 2015 for five years. Created in 1991, the IUF gathers researchers selected by an international jury for the quality of their research. There are two types of members, juniors and seniors. The junior members are young researchers whose research and teaching are of exceptional quality.

tse-fr.eu/people/christian-hellwig
iuf.amue.fr/

List of TSE researchers currently at the IUF:

- Emmanuelle AURIOL
- Jean-Paul AZAM
- Bruno BIAIS
- Helmuth CREMER
- Pierre DUBOIS
- Patrick FEVE
- Jean-Pierre FLORENS
- Christian GOLLIER
- Christian HELLWIG
- Augustin LANDIER
- Michel LE BRETON
- Thierry MAGNAC
- Michel MOREAUX
- Franck PORTIER
- Patrick REY

Augustin Landier

nominated at the French Economics Analysis Council

Augustin Landier, TSE researcher, joined the French Economics Analysis Council (CAE). In direct link with the French Prime Minister, the CAE works independently on economic analyses that are made public. Its members are academic economists and renowned researchers such as Jean Tirole, TSE Chairman.



tse-fr.eu/fr/people/augustin-landier



Daniel Garrett

awarded the CESIFO 2015 Prize

Daniel Garret, researcher at TSE, was awarded the CESifo 2015 Prize in micro-economics for his article "Incoming demand with private uncertainty" which he presented at the annual CESifo conference which took place last March in Munich.



tse-fr.eu/people/daniel-garrett



Jean Tirole

elected to the National Academy of Sciences

The American National Academy of Sciences (NAS) has been founded by Abraham Lincoln after the American Civil War, and provides independent and unbiased reports on issues related to science and technology. The NAS elects every year new members and Jean Tirole is among the 21 foreign personalities to join the institution this year.



Jean Tirole received Honoris Causa degrees from the LUISS University in Rome, and from the European University Institute

TSE Chairman, Jean Tirole, was appointed Doctor Honoris Causa from both The Libera Università Internazionale degli Studi Sociali (LUISS) and the European University Institute.

Appointment of Ulrich Hege as General Director of TSE

The Jean-Jacques Laffont-TSE Foundation Administration Council appointed Professor Ulrich Hege as Director of Toulouse School of Economics. Ulrich Hege is currently the Associated Dean and Director of the PhD programs at HEC Paris.

His main objectives at TSE will be to reinforce the status of the institution in the ongoing international competition for academic leadership, to unite teams around a shared project for excellence in research and education, to consolidate and diversify the funding for that project and to set up a new organizational architecture following the merging of the three TSE laboratories into one unique entity. Ulrich HEGE will replace Christian Gollier which had been Director since 2009 and have played a key role in the creation of TSE and its Foundation, as well as in obtaining the LABEX label in 2012. Following Jean-Jacques Laffont, and with Jean Tirole, he has been one of the main contributors to the success of the TSE Community.

Christian Gollier is currently in New York where he will spend an academic sabbatical year as invited professor in the economics department of the University of Columbia. Patrick Rey, UT1-Capitole-TSE professor and former director of the IDEI will ensure the interim until the arrival of Ulrich HEGE, on 1 January 2016. ■



Will there be an international agreement at the COP21?

The 21st conference of the United Nations on climate change takes place in Paris from 30 November to 11 December 2015. The objective of the conference is to reach an agreement on carbon emissions. Do you reckon "COP21" will end with an agreement?

In a few months the COP21 conference will take place in Paris, do you think an international agreement will be reached? Answer directly on our blog debate.tse-fr.eu



New Research Chair: "Authorised stability and central banks" with the Central Bank of Luxembourg

This new Chair, financed by the Central Bank of Luxembourg (CBL), promotes high level research on the subjects relatives to central banks. The two institutions will cooperate through several ways, including co-authored publications, trainings, exchanges, conferences, workshops and visiting researchers from one institution to the other.

The Chair gathers several international researchers around professors Jean Tirole and Patrick Fève, and will last five years. "After many exchanges through the years, we are very excited to finally formalise our cooperation with Toulouse School of Economics and Jean Tirole, whose work has been recognised by the Nobel Prize in economics in 2014." Explained M.Reinesch, the Central Bank or Luxembourg Governor. "Our aim is to strengthen our monetary, financial and economics research at the CBL, especially in fields of direct relevance to Central Banks. This improvement should also contribute to grow the economics and financial dialogue in Luxembourg." He added. ■

Save the date

14 OCTOBER 2015

Climate Conference – TSE : How to reach an ambitious and credible climate agreement

Paris Dauphine University.

15 OCTOBER 2015

21th IDEI Annual Conference and Jean-Jacques Laffont Prize 2015

Elhanan Helpman (Harvard University) Toulouse, France.

14-15 DECEMBER 2015

Trading and post-trading
Toulouse.

6 JANUARY 2016

The Future of Book Creation Workshop
Toulouse.

7-8 JANUARY 2016

Ninth Conference on The Economics of Intellectual Property, Software and the Internet
Toulouse.



Events by invitation only, find out more: tse-fr.eu - www.iast.fr

Newcomers

Matteo Bobba

(Inter-American Development Bank, Washington)

Matteo Bobba obtained his PhD from Paris School of Economics before joining the Inter-American Development Bank in Washington. He works on issues related to development economics and labour economics. He recently analysed market imperfections in developing countries.



Mathias Reynaert

(University of Leuven & University of Antwerp)

Mathias Reynaert received his PhD from the Leuven University and the Antwerp University. He is mostly working on industrial and environmental economics. He recently worked on the evaluation of taxes and regulations in the European car market. He received the 10th Paul Geroski price and young economist essay award at the EARIE conference.

Alexandre de Cornière

(University of Oxford – Nuffield College)

Alexandre de Cornière is an industrial economist, working on questions related to digital markets, media markets and advertising. At TSE, Alexandre is a member of the Jean Jacques Laffont Chair for the Digital Economy. Prior to joining TSE, Alexandre was a Postdoctoral Research Fellow at Nuffield College, University of Oxford. He obtained his PhD from the Paris School of Economics in 2012.



tse-fr.eu/media/pressroom



Shruti Sinha

(Northwestern University)

Shruti Sinha received her Ph.D. in Economics from Northwestern University in 2015. Prior to her doctoral studies she also received an M.Sc. in Economics from LSE in 2009, and a B.A. in Mathematics from the University of Delhi in 2007. Her research interests lie in studying the econometrics of multi-agent models and social interactions, and its applications. She is currently working on econometric models of matching markets.



Nicolas Werquin

(Yale University)

Specialised in Macro-economics, Nicolas Werquin is working on tax systems and their impact. He recently finished his PhD at Yale University.

PHILIPPE DE DONDER, DAVID BARDEY, CÉSAR MANTILLA, FRANCISCO MARTINEZ-MORA AND JOHN E. ROEMER

Piketty, university admissions and the future of medicine

Philippe De Donder has joined TSE in 1998, first as assistant professor and then as CNRS researcher. Within the Public Economics and Political Economy Group, he focuses on the economic consequences of political forces such as electoral competition, referenda and interest groups.

Back in Toulouse after spending a sabbatical year in Montreal, he has told us about three articles he is currently writing. The first is about admissions standards in higher education, the second looks at wealth inequality in the context of the

research done by Thomas Piketty (Paris School of Economics) and the third is an exploration of insurance systems in an era when personalised medicine is becoming more widespread.



Philippe De Donder
TSE researcher

You are working on an article about accessing higher education. How did that come about?

A few years ago, I presented a paper on education and social mobility at a conference and I had the opportunity to meet Francisco Martinez-Mora (University of Leicester), who was the designated discussant. I was really lucky to interact with someone who knew the topic inside and out, and who had obviously spent quite some time working on my draft. After the event, we continued our discussion about access to education. During these conversations, it naturally became clear that we should write a paper on the subject together.

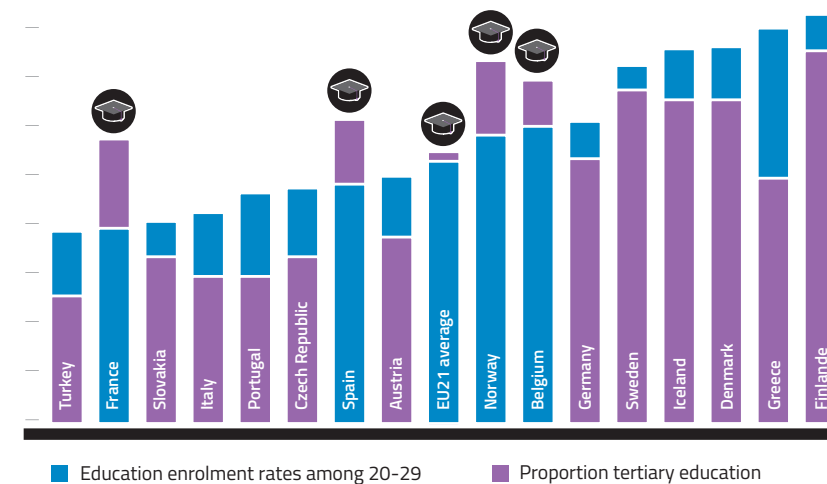
What does the article focus on?

The article looks into the setting in democracies of the minimum academic or cognitive level required to go to college. A direct application of the median voter theorem to societies where higher education is paid for by the government (as in most European countries) suggests that half the student population should attend universities. But in reality, this proportion is lower in all developed countries. We attempt to explain the gap between this prediction and the empirical data by building a simple model that determines the percentage of students in a generation who will become highly qualified by attending universities.

How did you build that model?

In our model, parents set by majority voting the minimum cognitive level allowing access to university. The model factors in many parameters, like the parents' standard of living, their children's academic abilities and how the equilibrium wage is affected by the proportion of high skilled workers. We also assume that parents know the cognitive abilities of their (unique) child. Our model generates the empirical observation that less than 50% of a generation attends universities.

Higher education in European countries in 2010



How does your model explain that?

The equilibrium wage of workers who have not attended university increases with the proportion of individuals attending university: when there are more highly qualified workers in the job market, unskilled employees become scarce and are thus being paid more. This is prompting parents who know that their child is a low achiever to favour a large university, to boost their child's wage. That said, increasing the size of the university (by lowering the standards of admission) comes at a cost to all taxpayers. The level of access chosen by majority voting trades off these two considerations.

Have you analysed other parameters?

We have looked at the impact of social inequality on the size and composition of universities, and our model is consistent with a positive correlation between social inequalities and the fraction of the population attending universities: larger inequalities generate larger universities, populated by a larger fraction of children from upper classes. These findings are the same when we factor into the model private institutions of higher education that are funded by the parents.

You are also working on a paper about the wealth distribution, in the spirit of Thomas Piketty's book?

Yes, exactly. Thomas Piketty has looked empirically at the wealth distributions in several developed countries and has documented a dramatic increase in wealth inequality since the 1970s. With John Roemer (Yale University), we have decided to take the analysis of this trend a step further in order to explain these findings in more detail by building a theoretical model that accounts for a number of factors and by calibrating the model on data from the US.

What does this model tell you about the sources of wealth inequalities?

There are many reasons which jointly explain the evolution of these inequalities. First, the political aspect seems to play a major role. The wealthiest individuals are pressuring the government to decrease capital gains taxes, thereby protecting their fortunes. Second, inequalities in the rate of returns to capital also appear to be of importance: these returns increase with the amount of capital invested, which inevitably widens the wealth inequalities.

So, does your model predict that inequalities will become worse?

Our model predicts that a key parameter which will determine how this phenomenon evolves is the degree of social mobility. In the long run, even limited social mobility rebalances the scales to a considerable degree. There seems to be a simple explanation. If very rich people have children who are not really productive, the latter will gradually squander the family fortune. Also, if families with few resources have highly productive children, they will become part of the wealthier class. Hence, in the very long term these gaps can even themselves out and even decrease if the societal structure fosters social mobility. Unfortunately, that rarely happens today, especially in the United States, as Raj Chetty (Harvard) has shown in his recent work.

You are also working on a paper about personalised medicine. What can you tell us about it?

It is a fascinating subject (the use of genetic information to help in diagnosing, preventing and treating diseases) and I have found the ideal co-authors – David Bardey (U Los Andes and TSE) and Cesar Mantilla (IAST) – to attempt to understand the implications of this phenomenon. In just a few years, personalised medicine has taken giant leaps and, while a few years ago it still cost over €100,000 to map out someone's genome, the price is now closer to €1,000. This means that in the future we will be able to cheaply analyse an individual genome and deduce that person's heightened risk for certain diseases, for instance.

More specifically, what have you been studying?

Personalised medicine brings up a number of ethical as well as economic issues. So we are focusing on how insurance works in a world where people can access genetic testing at a low cost. We have run

...
 an experiment where people discovered by testing their probability of developing a given disease in the future and had to decide whether they wanted to share those results with their insurance company. More specifically, they had to choose one of two regulatory models currently being used around the world. The first is called Consent Law, where you can choose whether to tell your insurance company about the results. The other is the Disclosure Duty model, which makes it mandatory for people to inform their insurance company of all test results.



And what were your findings?
 There are drawbacks to each regulation. The Consent Law model generates adverse selection and induces insurance companies to elicit who among the people claiming they have not been tested is telling the truth and who is lying. The Disclosure Duty model exposes people to discrimination if they are unlucky enough to carry defective genes. The cost of the Disclosure Duty model is more immediately apparent for people than the drawback of Consent Law, but we have found that the crucial factor determining preference for either regulation is the number of people who choose to get tested. We predict that the more mainstream these tests become, the more drawbacks the Consent Law model will have and the more attractive the Disclosure Duty model will look.

What are your plans for this topic?
 We are currently looking for funding to experimentally confirm and extend these findings and to improve our understanding of the mechanisms at play. Sponsors are most welcome! ■

SILVIA ROSSETTO AND AMRITA DHILLON

Ownership structures and level of risk

Silvia Rossetto joined the TSE Financial Economics department in 2008 where she has been working on corporate governance and ownership structure. In February she and her co-author Amrita Dhillon (King's College, London) published an article in the prestigious *Review of Financial Studies* journal. She spoke to TSE Mag about her research.

What is the article you published in *Review of Financial Studies* about?

The article deals with firm's ownership structure. Firms show complex and varied ownership structures across industries and countries suggesting that one ownership structure does not fit all. Economic theory predicts that in a world without frictions, firms should have a dispersed ownership structure, that is, they should be owned by small shareholders with a perfectly diversified portfolio. However, when frictions are present dispersed ownership structure might not be optimal. Take the friction of costly monitoring of the management, small shareholders do not have the incentive to monitor the management and hence dispersed ownership might not be optimal. It has been demonstrated that in such a situation a large shareholder might have the incentive to arise and monitor the management.

It is estimated that more than 50% of the companies in the world include mid-sized shareholders

Empirically, however, firms show often ownership structures more complex than either dispersed ownership or one large shareholder with a fringe of small shareholders. Firms usually have several mid-sized shareholders together with one large shareholder and many small shareholders. This structure has been little examined and the few theoretical studies which attempt to explain this heterogeneity in ownership structure, rely on the assumption that investors are wealth constrained or cannot take short positions in the stock market. We wanted to delve deeper in the issue and understand if alternative mechanisms are at play which do not rely on these strong assumptions. More precisely we looked if such ownership

structure can be the result of a power struggle for control among shareholders.

How does your model explain the formation of mid-sized shareholders?

Our model provides a framework to explain a variety of phenomena reported in empirical studies. We consider a world constituted by identical risk-averse investors with no wealth constraints. A firm has to take a decision on the riskiness of an investment. The decision is such that the higher the risk, the higher the expected return. The decision is taken through shareholders vote. We start from a situation where one large shareholder is needed to monitor the management. The larger his/her stake is, the less prone he/she is to take risky investment decisions. This conflicts with small shareholders, who prefer more risky investments. When not all small shareholders go and vote a wedge between voting rights and cash flow rights arises. This situation provides incentives for a mid-sized shareholder to emerge. In broad strokes, our model predicts that a mid-sized shareholder will appear to counterbalance the voting power of the largest shareholder, notably to allow the company to take more risk, leading to higher market value.

What are the implications of the presence of mid-sized shareholders in an ownership structure?

The idea that mid-sized shareholders have a direct impact on a firm's decisions is supported empirically and by survey evidence, though it remains difficult to explain from a theoretical perspective. Our model predicts that in many cases a

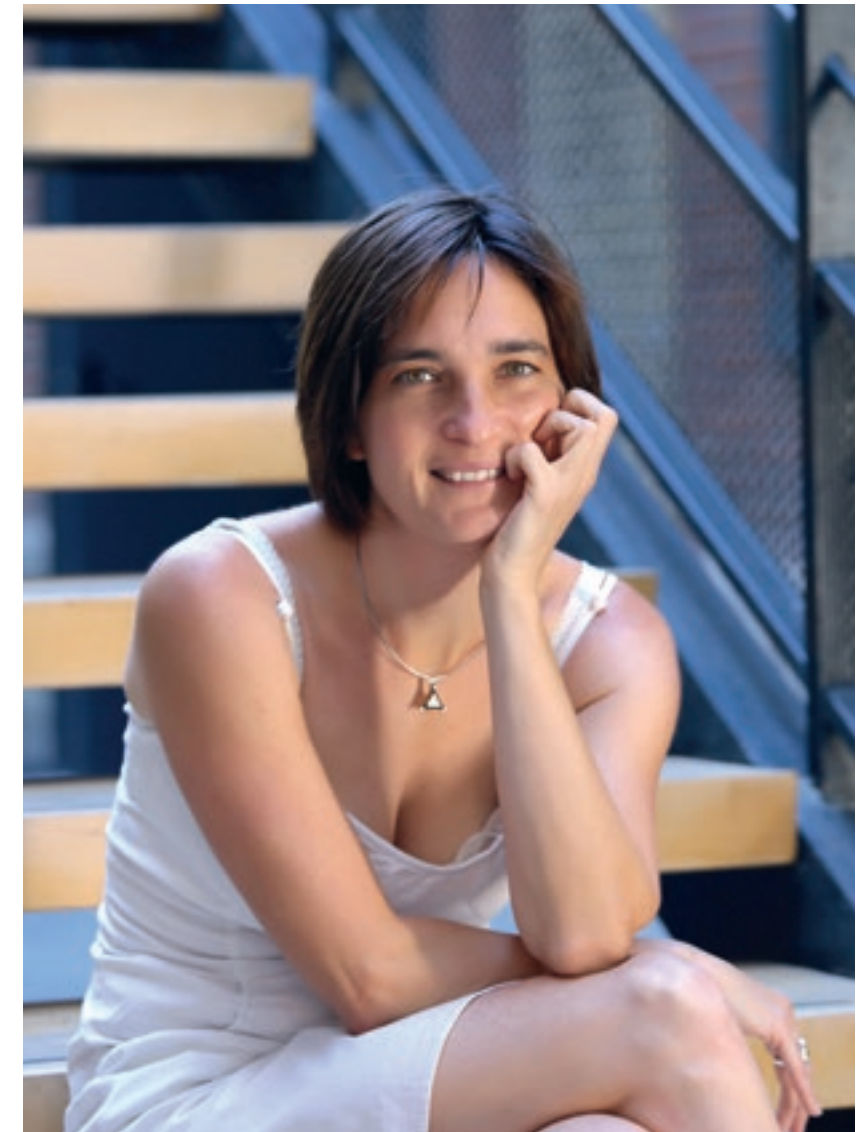
company presenting only one large shareholder should see the arrival of at least one other large shareholder. Moreover, the size of the second-largest shareholder tends to increase to the size of the largest shareholder to counterbalance his/her voting power. The important implication of our model is that it is not necessarily the largest shareholder that determines the firm's decisions but rather the median one.

How prevalent are mid-sized shareholders in companies around the world?

It is estimated that more than 50% of the companies in the world include mid-sized shareholders. The power of those shareholders is reinforced by the tendency of small shareholders not to participate in company meetings. The significance of this absenteeism depends on the country studied and its legislation. In California, for example, shares that are not voted are counted as voting with the management. In Delaware, they are counted as abstentions. Our model predicts that economic systems that thwart voting by minority shareholders should have firms with ownership concentrated in the hands of fewer and bigger shareholders. This prediction has not been empirically tested but there are some clues that support this correlation. It has been found that UK companies take more risk and create higher value than their US counterparts and this finding has been linked to UK pension funds, which are known to be very active. We believe that this is because legislation in the UK favors shareholders' activism.

What are the next steps for your research regarding ownership structures?

We would really like to test the findings of our model with empirical data and better understand some the interaction among the key variables. We would also like to see how ownership structures impact other aspects of companies, such as payout policies and leverage. ■



Silvia Rossetto
 TSE researcher

"The important implication of our model is that it is not necessarily the largest shareholder that determines the firm's decisions but rather the median one."
 Silvia Rossetto

MICHEL SIMIONI, GILLES ALLAIRE, ERIC CAHUZAC, YANN DESJEUX, ELISE MAIGNÉ AND THOMAS POMEON

Organic farming evolution in France

In a recent article Michel Simioni, TSE researcher, and his co-authors (Gilles Allaire, Eric Cahuzac, Yann Desjeux, Elise Maigné and Thomas Pomeon, INRA researchers) take a look at the geographic evolution of organic farming in France as well as the determining factors of the conversion of farmers to organic farming. Michel Simioni tells us more on the subject.

What are the reasons behind this article?

This article is the 5th of an ongoing series dedicated to agro-environmental policy in France. Those articles wouldn't exist without the database gathered at the Observatory of Rural Development created by Gilles Allaire in the noughties. These data have been collected by administrations in charge of farming subsidies in France. We exploited this database in this article in order to answer several questions on the factors leading to the conversion to organic farming.

What is the current state of organic farming in France?

The data used in this article are from 2007-2010. In 2010, organic farming, i.e. with a label, only covered 3.1% of the total agricultural land. It now represents 4.4% and, despite that rise, is still a minority. To delve deeper in the matter, we divided France in homogeneous micro-territories in terms of biophysical, agronomical and institutional context. It then appears that the French territory is very heterogeneous and that there are many "deserts", zones without any organic farming.

How do you explain those "organic deserts"?

First of all, it needs to be said that there are many farmers in France who have implemented organic farming but aren't labeled as such. These farmers don't appear in the data. Then, it appears that the territories where organic farming has been present for a long time are much more likely to see conversions of farmers. This spatial correlation partly explains those organic "deserts". Finally, in numerous regions, the production systems (cereals in the Beauce region, for example) are complicated to convert to organic farming.

What have you precisely analysed in this article?

We analysed the links between the presence and number of organic farmers in a micro-territory and numerous other factors such as the anterior presence of organic farmers on the territory, the production system, the importance of quality

signs, the presence of organic shops, the use of direct sale by farmers, etc. We tried to measure the impact of those elements on the development of organic farming.

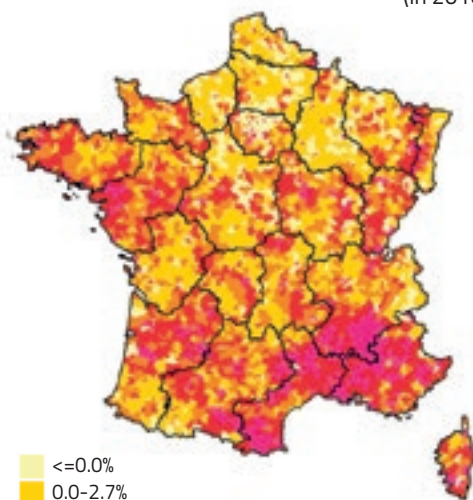
What are the main findings of this analysis?

The first one is that conversion to organic farming is much more likely in territories where organic farming has been present for a long time. Another interesting correlation is that the age of the farmers directly impacts the chances of conversion; the younger a farmer is, the higher the chances of conversion are. It can also be said that the presence of organic shops doesn't have a clear impact, and neither does the use of direct sale or the implementation of a regional label. On the contrary the diversification of activities leads to higher conversion rates, meaning that farmers who exploit their farm as a holiday cottage, a restaurant or an inn are more likely to convert to organic farming. Finally, more organic farmers on a territory means a stronger probability of conversion.

What are your future projects on the subject?

We currently have an article under revision about agro-environmental policies which encourage farmers to have a higher grass per cattle ratio. We have analysed two regions, Normandy and Auvergne and we hope to soon publish the results. ■

Share of organic farms by canton in France (in 2010)

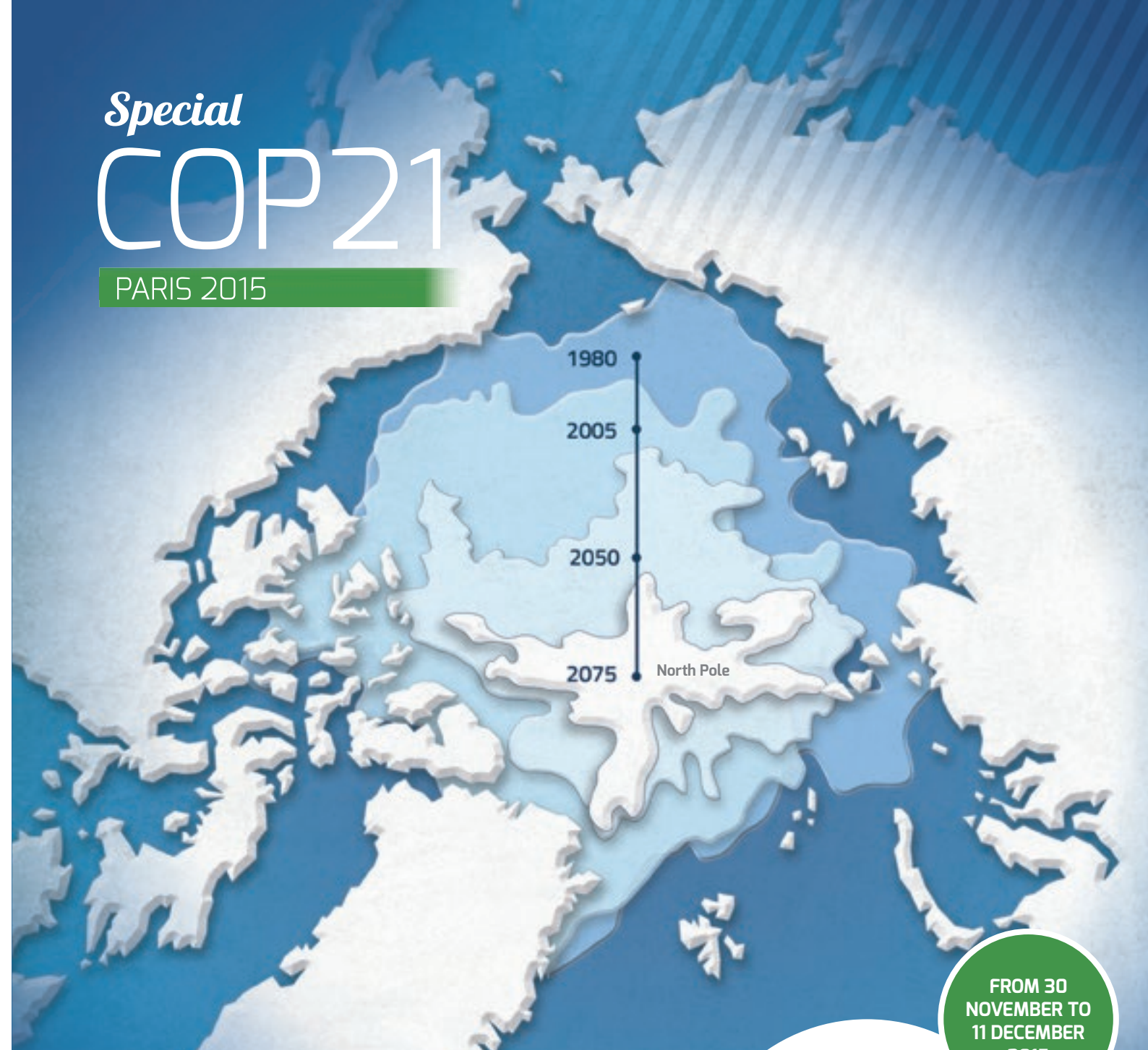


<=0.0%
0.0-2.7%
2.7-4.5%
4.5-10.3%
>10.3%

Source AGRESTE

Special COP21

PARIS 2015



FROM 30 NOVEMBER TO 11 DECEMBER 2015



14 The event

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Making climate agreements work

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COP21 seen by TSE researchers

18 The numbers

17 The manifesto

Call for an ambitious and credible climate agreement in Paris



Environmental economics is a field that has long been studied at Toulouse School of Economics and several TSE researchers made it their specialty.

In several months, the "COP21" UN Conference on Climate will take place in Paris and it seems fitting for TSE researchers to expose their views on the subject, in order to thoroughly detail the multiple sides of the issue. Economics can provide methods able to analyse, compare and quantify the issues at play and it is needed to shine a light on the debate by providing evaluations of the different environmental policies and, *in fine*, to allow everyone to better understand the stakes at play in Paris. You will find in this COP21 dossier abstracts from articles written or co-written by TSE researchers detailing several environmental issues. These articles will be followed by others in the coming days and weeks and you will be able to read them all on our blog: TSE Debate. Have a nice read!

Frédéric Cherbonnier

196
SIGNATORIES*

All members of the UNFCCC** they gather every year through the UN. They also rely on a scientific group, the IPCC (Intergovernmental Panel on Climate Change).

*195 states + European Union

**United Nations Framework Convention on Climate Change

CHRISTIAN GOLLIER (TSE), JEAN TIROLE (TSE)

Making climate agreements work

This December France will play host to crowds of diplomats as the United Nations holds make-or-break talks on climate change. The challenge for delegates in Paris is to achieve a binding agreement that will limit the increase in the world's temperature to no more than 2°C. It is an incredibly difficult task. But economics can shed light on which strategies have the best chance at success.

Climate change is a global commons problem. In the long run, most countries will benefit from a massive reduction in global warming. Unfortunately, there are powerful incentives to leave the burden of reducing greenhouse gas emissions to others. The approach often proposed to solve this free-rider problem is to make polluters pay a uniform price for their emissions. This encourages polluters to take all available steps to reduce emissions which cost less than that price, which guarantees that we get the best environmental benefit from our collective sacrifices.

This approach, though solid in theory and validated in practice for other pollutants, has not been embraced by the world's governments. At the 2009 Copenhagen conference the idea of a global carbon price was dropped, and the UN's climate-change convention became a chamber for the registration of non-committal pledges.

A race to slowness

This "pledge-and-review" mechanism is likely to be confirmed in Paris. Under this convention countries register their voluntary climate actions. There is no coordination in their method or measurement.



Christian Gollier
TSE researcher

The pledge-and-review strategy is completely inadequate. First, it lacks the efficiency of a coherent carbon price. Second, the absence of any binding commitment limits its credibility and makes it very tempting for countries to renege on their pledges. In Paris, countries will have every incentive to make their pledges hard to compare to others, and impossible to verify or enforce. Third, the pledge-and-review process exacerbates the free-rider problem, because staying carbon-intensive puts countries in a strong position to achieve a better deal at the bargaining table in the future.

The world could do better. A carbon tax, collected by individual countries, looks a far more effective tool. Countries could be required to impose the common price as long as all others do too, and domestic revenues from the tax could be recycled internally. Transfers to developing or reluctant countries, such as through the Green Climate Fund, could be set up to address concerns about fairness.

Emission trading

Unfortunately, a green fund is too transparent to be politically acceptable, as governments are usually reluctant to be seen giving vast amounts of money to foreigners. Enforcement of a carbon tax is also problematic, because governments have strong incentives to turn a blind eye toward certain polluters, to underestimate their pollution, or to compensate them by other means such as coal subsidies or tax cuts on fuel. Foreigners cannot easily impose stringent tax collection when a country is reluctant to strengthen it, as has been observed in Greece under the Troika. By contrast, an international enforcement mechanism focused on the *quantity* of national emissions is relatively straightforward. All one must do is monitor a country's CO₂ emissions, and modern technologies make that easy.

We therefore favour a cap-and-trade scheme, in which a multilateral organization either auctions or allocates tradable permits to participating countries, which entitle the holder to a certain level of emissions. Cap-and-trade schemes to be certain must be properly conceived, as experience with the European Union's emissions trading system demonstrates. However, cap-and-trade policies have spread round the world, to California, South Korea and parts of China for CO₂ emissions as they had done for other pollutants, suggesting their implementation is a practical possibility.

A market for these permits would ensure that a single carbon price emerges from mutually beneficial trades. A country would purchase additional permits when its national emissions exceed its allowance, and any surplus permits could be sold. Compensations could be handled through the allocation and trading of permits.



Jean Tirole
Chairman - Toulouse School of Economics

Sanctions

Sovereign borrowing raises concerns about countries' commitment to repay creditors because sanctions for defaulting are limited. Similarly, even if a good agreement is reached on climate change, it must still be enforced. Naming and shaming should be encouraged but as we have seen with the Kyoto Protocol "commitments", it has limited effects. Countries can always make excuses.

There is no bulletproof solution to the problem of enforcement, but at least two instruments should be used against countries which break climate agreements. First, the WTO should treat non-compliance as a form of dumping,

leading to sanctions. Second, non-compliance should commit future administrations and should be treated like sovereign debt. In a cap-and-trade system, a shortfall of permits at the end of the year would add to the public debt of offending country. The conversion rate would be the current market price. Non-participating countries should be punished with border taxes administered by the WTO.

There is no perfect political-economy solution to climate change, which wraps economic efficiency in a politically convenient package. But the current pledge-and-review strategy is unacceptable, and will just prolong the waiting game. A carbon tax, which is efficient and reasonable, is clearly superior. But the cap-and-trade approach combines the efficiency of the carbon tax with easier enforcement. For that reason we believe it should sit at the heart of any successful global climate agreement. ■



COP21 seen by TSE researchers

As the COP21 Paris 2015 Conference, which will take place in December, gets nearer, TSE economists are willing to share their insights on the matter and offer possible solutions to the issue. Christian Gollier and Jean Tirole wrote an article on the subject and so have Nicolas Treich, Christoph Rheinberger and Mathias Reynaert, you will find the main takings from the articles below.

On the economics of the end of the world as we know it

Christoph Rheinberger (TSE), Nicolas Treich (TSE)

Perhaps for the first time in history, there seems to be a broad consensus among scientists. They claim that our planet might face a frightening future if we cannot agree to take decisive actions here and now. Conventional wisdom holds that we should limit global warming to 2°C. To justify this target, economists seek to compare the cost of reducing current emissions with its benefits. Indeed, there is a trade-off: investing more resources today in climate-change prevention leaves less to combat other immediate risks.

Economists estimate life value based on people's personal choices: we purchase bicycle helmets, pay more for a safer car, and receive compensation for risky occupations. The observed trade-offs between safety and money tell us about society's willingness to pay for a reduction in mortality risk.

The value of life as a concept is a natural candidate for a tentative estimation of the benefit of reducing extinction risk. Yet the approach seems somewhat awkward in this context. The extinction risk here is completely different from the individual risk we face in our everyday lives. Human extinction is a risk we all share - and it would be an unprecedented event that can happen only once.

A lack of reliable data exacerbates the profound methodological and philosophical difficulties faced by climate change economists. Extinction is a threat to future generations, while evaluating and designing prevention policies is an urgent challenge today.

The United Nations conference in Paris this December offers a chance to take appropriate steps to protect future generations from this risk. Many economists do not believe in the current pledge-and-review mechanism, and favour the implementation of a generalised carbon-trading system instead. ■



Is air pollution good news for the climate?

Stefan Ambec (TSE), Jessica Coria (Göteborg University)

Local air pollution is a big concern in many countries including in the developing world, but maybe this benefits to the climate.

A recent study by Parry *et al.* (2014) estimates the price of carbon that it is the domestic interest of countries due to co-benefits leaving aside climate change mitigation. They find an average value of \$57 for the top twenty emitters. These numbers are by all means substantial if one considers the price of the EU ETS permits has persistently been under 10 €/tCO₂.

Yet this is not the fully story. The interaction between local air pollution and GHG emissions can go the other way round: less emissions of sulfur dioxide, nitrogen oxides or particulate matters sometimes means more GHG emissions. For example, switching from diesel to gasoline vehicle engine reduces VOC but with more CO₂ emissions per mile. Empirical evidence by Bonilla *et al.* (2012) has shown that climate policy might also have adverse consequences in some other countries which instead of reducing the emissions of co-pollutants could increase them.

Another side effect of the interaction between local air pollution and GHG emissions is that the outcome of a climate negotiation might have an impact on air quality regulation and vice-versa. In a recent paper Ambec and Coria (2015) have investigated the question of the effects of 'policy spillovers' between local and global pollution. The paper shows that, without any international obligation for GHG emissions, it is in each country's own interest to reduce its GHG emissions when local air pollution and GHG abatement efforts are complement. In contrast, when abatement efforts are substitutes, countries have no self-interest in reducing GHG emissions. Worse, the regulation of local air pollution might lead to higher GHG emissions.

So finally, is air pollution really good news for the climate? Well, it depends on the technology used for reducing pollution as well as the agreement that would emerge from future climate negotiations. Let's be optimistic as many technologies adopted during our current energy transition to renewable sources are exhibiting economies of scope in pollution abatement. ■

The principle of paying for pollution, explained

Christian Gollier (TSE)

Whenever I decide to take my car instead of the bus, metro or bicycle, I don't take the damages done to the environment into account. Everyone on earth can freely pollute every day and this addition of polluters generates the climate change we are currently facing. It is necessary for everyone to make an effort but no one is encouraged to. Our solution would be to make polluters pay for the environmental damages they cause. As a CO₂ molecule has the same effect anywhere on earth, the price for carbon emission should be unique and universal, with compensations organized.

The outrageous inequalities in the world, the weakness of development aids, the announced failing of the green climate fund or the Greek drama are all reminders



of the strong political constraints preventing any international solidarity. Many have therefore accepted to capitulate before the Paris Conference, wishing at best regional initiatives where engagement will come at a heavy cost. As our common house is burning, there is still hope. We propose to build a large coalition of countries sharing a same principle of paying for pollution,

inciting other countries to join on the basis of punitive import taxes or recalculating national debts depending on pollution. It would be naive to think that this is going to be easy, but it's the fate of our civilization that is threatened. ■

Can fuel-economy standards save the climate?

Arthur Van Bethem (University of Pennsylvania), Mathias Reynaert (TSE)

Transport is responsible for about 20% of global greenhouse gas emissions. To save the climate, transportation is an obvious and visible target for regulators. Empirical evidence shows that fuel-economy standards have succeeded in reducing carbon-dioxide emissions from passenger cars. One recent study indicates that they force carmakers to offer more fuel-efficient cars and sell fewer gas guzzlers.

So what's not to like about fuel-economy standards? They suffer from three fundamental problems:

First, they do not affect driving behavior. If anything, they will cause more traffic. Fuel-efficient cars are cheaper to drive, so people will drive more. Worse still, more problems have shown up when policy makers implement fuel-economy standards. Fuel-economy ratings are often much above the fuel-economy realised on the road.

Next, these regulations often contain several loopholes that cause severe distortions. The high market share of SUVs in America is at least partly attributable to their special treatment.

So what's a better policy? Most economists believe there is an easy answer: we should increase the tax on fuel.

A petrol tax has all the same benefits of a fuel-economy standard without suffering from any of its flaws. A tax encourages consumers to choose a greener car, in particular those consumers who drive and pollute a lot. The time has come to let our aversion against fuel taxes go. "Tax" is an ugly word, but both the climate and the economy would be relieved. ■

11,6 million barrels a day

The spectacular rise of shale gas is changing the worldwide landscape of energy production. The United States, which have been the second biggest oil producing country behind Saudi Arabia and Russia have taken the lead. That's according to the latest report from the International Energy Agency (IEA). This is the first time since 1991 that the United States are the biggest oil producing country. The U.S. production rose to reach 11,6 million barrels per day.

-50% for the barrel of crude oil!



Brent price, which was about 108\$ per barrel in early 2014 knew a steep fall and is now exchanged at 49\$ a barrel.

Source AFP

22% → 26%

The global production of renewable electricity should rise by 45% and reach 26% of the total electricity production between 2014 and 2020, when it represented 23% of that total in 2013.

Source International Energy Agency

2600 billion €

That's the annual cost of air pollution in the 33 countries constituting the OECD, China and India, due to premature deaths and diseases linked to that pollution. It represents 6.8% of these countries GDP.

Source OCDE

250 billion € invested in green energies in 2014

After two years of fall, the global investments in green energies are rising again. They grew by more than 17% to reach 250 billion euros in 2014. This rise is due to the engagement of China and Japan in solar energy, as well as the development of offshore windmills in Europe. These are the main takings from the UN Programme for the environment (PNUE) 9th annual report.



670 billion \$

In 2014, companies spent 670 billion dollars worldwide to try to develop new ways of extracting fossil fuels.

Source UCL (University College London)

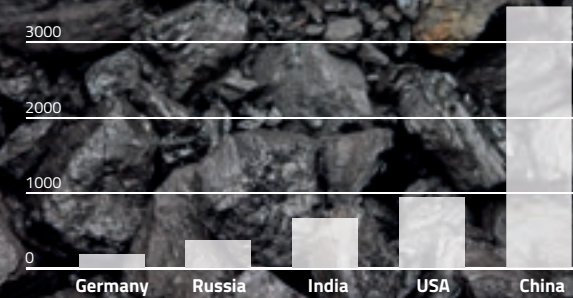
Denmark on top

Denmark has the best record in the fight against global warming according to Germanwatch. The rankings begin... with 3 empty places as "no country is doing enough to fight against climate change". Morocco received a glowing report as it is developing one of the largest solar energy programmes in world and is reducing fossil fuel subsidies.

International ranking of countries' efforts against climate change



Coal-producing countries, in million tons (2014)



Coal is king

It should overtake petrol by 2020, according to a study by the firm Wood Mackenzie. China, which is the world's largest consumer of coal, is largely responsible for the bright future of this fossil fuel. The Chinese market alone will account for 2/3 of the growth in the demand for coal in the next 10 years.

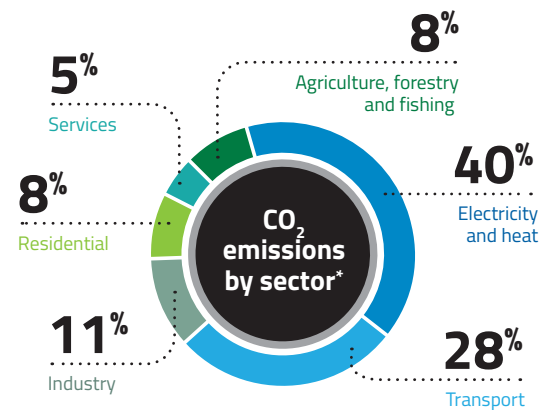
Real-time data

How many forests have been destroyed worldwide since the 1st January? How many litres of oil were produced in twenty-four hours? What is the wild animal trafficking market worth? Three sites to find out more, serious, fun or educational: worldometers.info, planetoscope.com and consoglobe.com.

worldometers.info

planetoscope.com

consoglobe.com



In 2013, power generation was the largest emitting sector (40% in the region and above 45% in about ten countries), followed by transport (28%). Emissions from electricity and heat generation were driven almost equally by industry, residential and services. In 2013, the OECD produced 10 800 TWh of electricity (180% more than in 1971), of which 61% was derived from fossil fuels. OECD electricity generation produced 432 gCO₂/kWh in 2013, just 76 gCO₂ less than in 1990.

www.iea.org/statistics

*In the OECD in 2013. Source : IEA CO₂ emissions from fuel combustion, 2015 preliminary edition. Released in July 2015

19,3 millions



In 2014, 19,3 million persons were forced to leave their home due to natural disasters. That's the number revealed by the Internal Displacement Monitoring Centre (IDMC) in Norway.

Earthquakes and volcanic activities led 1.7 million people to migrate, but the catastrophes linked to climate such as cyclones and floods were the main causes of migration.

Source Observatoire des situations de déplacements internes du Conseil norvégien pour les réfugiés (IDMC)

10 millions \$/minute

According to the IMF, fossil fuels represent an astronomical cost of 10 million dollars per minute (8,9 million euros).

In a report presented on 18 May by the International Monetary Fund (IMF) and written by David Coady, Ian Parry, Louis Sears

En savoir plus :



Source FMI

and Baoping Shang, the environmental cost of fossil fuels (coal, oil, and gas) will reach 5300 billion dollars (4740 billion euros) this year. This represents 14,5 billion dollars per day, or 10 million dollars par minute (you can read the detailed report on the link below).

18% ESTIMATED IMPACT



9% IMPACT REVIEWED IN 2015

Ruminants aren't so bad after all!

The World Organisation for Animal Health is downgrading the impact of livestock on greenhouse gases. A significant resource for poor rural families, animals are used for farming and transport by 2 billion people, which avoids the use of fossil fuels.

Climate justice

On 24 June, the Hague District Court ordered The Netherlands to reduce their greenhouse gas emissions by at least 25% by 2020 in comparison to 1990 figures, ruling in favour of the NGO Urgenda, an environmental defence group which brought the legal proceedings. This ruling was a landmark case.

-25% BY 2020



Call for an ambitious and credible climate agreement in Paris

ECONOMISTS' MANIFESTO

Economists from both Toulouse School of Economics and the Paris Dauphine University launched a call for an agreement at the COP21 Conference in Paris this December. More than 140 economists supported and signed the document which clearly states what should be expected from an agreement on Climate.

The call:

Climate negotiations at the United Nations have not substantively addressed the root cause of climate change from an economic perspective.

The climate is a planetary public good shared by all. Every ton of CO₂eq (CO₂ and other greenhouse gases) released destroys that resource in equal measure. A transition to low carbon economy requires policies that put a price on carbon, so that economic actors account for the damage to the climate from their emissions. If the Paris summit is to take any convincing action against the consequences of climate change, it has to build a cooperative structure with strong economic incentives, based on three principles:

PRINCIPLE 1

All nations should ultimately face the same CO₂eq price

PRINCIPLE 2

Carbon pricing must incentivize universal participation

PRINCIPLE 3

“Free-rider” behavior has to be hindered

The immense challenge of the COP21 is to build a cooperative framework that is attractive to as many countries as possible. This framework’s credibility depends on designing economic incentives that have a global impact. The economists who have signed this call wish to map out feasible solutions by presenting public policy-makers with this shared assessment of the causes behind current obstacles faced by the negotiation

180
signatories

87
Universities

19
countries

You can find more information on the Call, its signatories, and its detailed version on the dedicated website:



“A new world is bursting forth from the heart of the traditional economy”

The digital world is speeding up the transformation of all economies - both mature and emerging. Are we in the midst of a total change of model?

Today’s economy is a fascinating landscape that moves very quickly. On the one hand, we see traditional economies reaching the limits of their late 20th century model because they have failed to make the necessary

reforms. On the other, a new type of economy is bursting forth everywhere, offering phenomenal potential. Like every such emergence, however, it is accompanied by upheavals and conflict that call aspects of the former economy into question. Finally, we see emerging countries that have access to everything - capital, technology, talent - and are now fully connected to the world, but find themselves unable to escape traditional economic constraints: quality of governance, demographic fundamentals, etc.

This is the case in China in particular...

China is the perfect example. Traditional constraint: this year, the Chinese working population has remained stable. How can we imagine that this country can maintain growth of 7% to 10% with a stagnating working population? Growth of 10% was possible when the country was simultaneously experiencing

“China is the perfect example. Traditional constraint: this year, the Chinese working population has remained stable. How can we imagine that this country can maintain growth of 7% to 10% with a stagnating working population?”

accelerated investment, growth of the working population and migration from rural to urban areas. Today, there is less investment (saturation is being reported in certain sectors), the working population is stagnating and all that is left is urbanisation. In parallel to these traditional constraints, however, and complicating any analysis of the world as it currently stands, China is witnessing the extraordinarily fast emergence of a new economy that is at least as sophisticated as that of the United States. For example, the *WeChat* application, a mixture of *Facebook* and *Amazon*, has 500 million active users. Yet we are measuring the impact of this emergence on the economy very poorly.

Are the classic indicators obsolete?

It seems to me that they are a very poor way of measuring all the changes that are currently occurring - if they do so at all. I do not believe for a second in the theory put forward by economists who say that productivity is hardly progressing at all. It is just that it is not being measured correctly! We are witnessing a phenomenal improvement in the quality of certain services, the costs of which are also decreasing. A Google search, which costs nothing nowadays, would have been an expensive undertaking twenty-five or thirty years ago. If that is not productivity, then what is? Not only is it very difficult to measure the value of these products, it is also very hard to assess the obsolescence or validity of the capital accumulated. For example, many people think that the world’s leading hotel company is *Marriott*: the chain boasts 125,000 employees and 700,000 hotel rooms in total. However, the

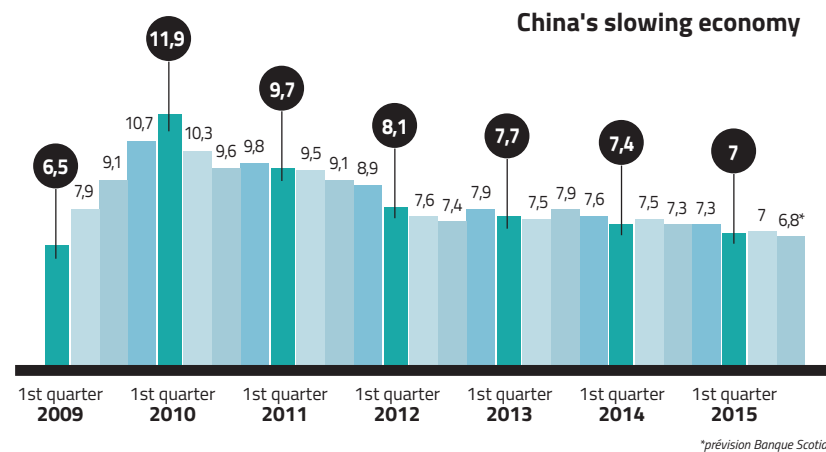


Henri de Castries
AXA Chief Executive Officer



...

largest global company in the hospitality industry is in fact **Airbnb**, with almost 1.5 million accommodation options available in 34,000 towns and cities as well as 1,600 employees. With that in mind, what are the traditional investments in the sector actually worth? What is the value of the capital stock accumulated by traditional business models? It is no longer the historical cost, it is not necessarily the market value today and it has become very difficult to project future profitability. That explains why **Tesla** is now worth as much as **GM**, although it only makes 2% of GM's turnover! On the one hand, there is an ultra-traditional model with physical investments measured in a traditional manner using instruments that have been in use for one hundred and fifty years, and we find that reassuring. On the other, there is this completely new model, with much lower investments, which uses production factors and different forms of knowledge, but manages to provide a service that is, in many cases, significantly better. This flouts all forms of measurement, but also shows us that new forms of development are possible.



Why is the Chinese downturn so worrying?

First of all, it is worrying for a good reason: China has a population of 1.4 billion, as compared with the 10 million to whom Greece is home... But the downturn is also worrying for a less worthy reason: a great many countries depend on Chinese demand to drive their own economies. They rely on their Chinese aunt as they once did on Uncle Sam. Yet it is not China that will allow

Europe to postpone structural reforms or exonerate itself from them by means of artificially sustained growth.

Will we see the end to growth in Europe? Has the developed world entered an era of stunted growth?

We cannot escape certain fundamentals, such as demography. When this stagnates, growth rates will logically drop. Productivity cannot always compensate for demographic decline. Therefore, it is a country's income per capita that is important. This is increasing in Germany, but stagnating or dropping in France. However, although we are in a cycle of weak GDP growth at the moment, the quality of the services on offer is undergoing an unprecedented degree of improvement, and the traditional statistical apparatus does a poor job of capturing this reality. In addition, there are sectors, countries and companies within Europe that are coping extraordinarily well and others that are dead on their feet. France is a reflection of this situation: on the one hand, we see exceptionally successful models, with the emergence of new businesses in the services and technology sectors (*Iliad*, *BlaBlaCar*, etc.), and on the other, swathes of the old world that are in the process of collapsing. What is happening at the moment in the agricultural sector, which is now paying for decades of rejecting modernisation, progress, concentration (except in certain branches, such as the cereals sector), is a classic example.

Henri de Castries

AXA Chief Executive Officer

Relevance

- This summer, Henri de Castries took over as President of the Institut Montaigne, succeeding Claude Bébéar, who helped build Axa and founded the think tank fifteen years ago.
- Reports are currently being prepared on the digital revolution and education, two topics that are close to his heart.
- Having been re-elected for another four-year term as Chairman of Axa last year, Henri de Castries is also thinking about his legacy. He has been managing the Group for some eighteen years - an exceptionally long period for a patron of the CAC 40 (French stock market index).

Career

The sixty-one year old de Castries is a graduate of HEC Paris and holds a degree in Law. He is also a graduate of the École nationale d'administration/French National School of Administration (ENA), graduating with the Voltaire year (class of 1980). A qualified tax inspector, he became a member of the French Treasury in 1984. Claude Bébéar recruited him for AXA in 1989, where he initially joined the central financial direction. The founder of the leading French insurance company went on to make de Castries his successor. Henri de Castries has been at the helm of Europe's second largest insurer for fifteen years. He will serve as CEO until the company's Annual General Meeting in 2018.



Will the new economy cost more jobs than it will create?

There will be very substantial destruction of capital and jobs at an accelerated rate, accompanied by the emergence of new activities. However, I believe that the recreation achieved will ultimately outweigh the destruction, since needs are always unlimited. The big question for Europe, which benefited from the industrial revolution in the 19th century, is whether this recreation will happen on our continent or elsewhere. We need to create fertile ground for it. That is absolutely possible because our economic and political model is the best in this regard. The world of tomorrow will be achieved through recognising individual initiative, the capacity to pool knowledge and talents, the ability to work as part of a team in a spirit of mutual respect, etc. These values are the values of political democracy; they are the fundamental values on which Europe was built. With a population of 500 million, we have both the critical size and the assets we need to succeed.

And France?

France has even more of the assets needed to succeed in the new game than other countries do. It is not a matter of having the assets, but rather of how we use them. We must accept the world as it is. The message of modernisers such as Valls and Macron is both useful and positive, but needs to be made part of a coherent policy. We need courage to pass from speech to action and persistence to avoid implementing actions that contradict each other: for example, the CICE tax credit in France, which was introduced with a view to enhancing competitiveness, but which is at odds with tough working conditions.

Can François Hollande still bring about reform in the next eighteen months?

He would need to implement two or three fundamental reforms to be able to say that he had removed the roadblocks impeding French society. We cannot cling to popular symbolic measures: the privatisation of coach services will not bring us into the modern world. The British Chancellor of

the Exchequer recently said that in order to be able to judge the true health of a country, we need to consider two indicators: the dynamism of tax revenue and the unemployment figures. In the United Kingdom, tax revenue is increasing despite lower tax rates and unemployment figures have dropped considerably. In France, the situation is the opposite: taxes have increased substantially, but tax revenue has dropped and unemployment figures have exploded. Three or four years ago, many people in France considered *George Osborne* and *David Cameron* as young, slightly dangerous liberals. They have shown that it is possible to undertake courageous reforms within European democracies - and win elections! ■

Article by Nicolas Barré, published in *Les Échos* on the 31/08/2015, reused with *Les Échos'* permission.

The La Poste Group: a historic institution, a successful transformation

The La Poste Group and the IDEI have recently extended their partnership agreement for three more years. Jean-Paul Forceville, Director of Institutional and European Regulation and Affairs, gives us an update on a relationship that began in 1993. This overview revealed some unique challenges and helped make a needed change a success.



Jean-Paul Forceville

Jean-Paul Forceville graduated from the *École Supérieure de Commerce de Paris* in 1979 and then from the *École Nationale Supérieure des Postes et Télécommunications* in 1986. He joined La Poste in 1979 and held a variety of positions. He is currently the Director of Regulation, Institutional and European Affairs (DRAIE) for the La Poste Group.

Every day, La Poste serves
1.7 million users
at its 17,000 locations.

Six days per week,
90 000 postal workers
deliver over 75 million
pieces of postal items to nearly
26 million households.

What led the La Poste Group in 1993 to establish a partnership agreement with the IDEI and with Toulouse economists?

Not only did Jean-Jacques Laffont establish the IDEI in the early 1990s, it was also a time when La Poste and the postal sector were at a turning point in their history. The Act of 1990 on the organisation of the postal and telecommunications public services changed the status of the operators providing it. The reform sought to give the company the freedom it needed to manage its development strategy. At the time, Paul Quilès, the Minister of Posts and Telecommunications, thought this would give postal and telecommunications operators a chance to be «more proactive and competitive.» The legislation also laid out the missions assigned to La Poste: a universal postal service, the transport and distribution of printed media, a contribution to regional development and an access to banking and financial services. It also defined the scope of its monopoly, which was called into question a few years later. Indeed, the European Commission issued, in June 1992, a Green Paper on the development of a single market for postal services.

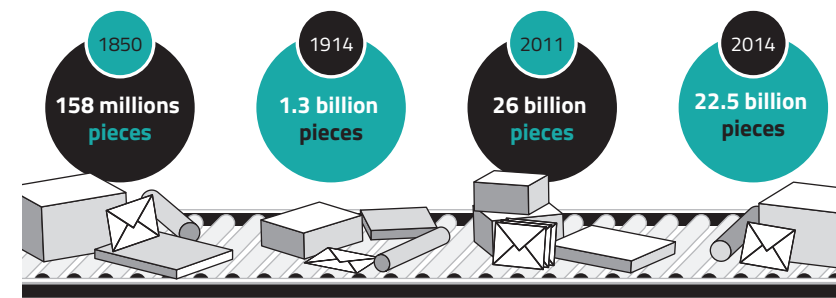
The talks at the European level resulted in the adoption of the first postal directive in 1997, which started the process of opening up the sector to competition. The fact that five years passed between the publication of the Green Paper and the first directive shows that it was clearly not easy to find a compromise. The Council, Commission and Parliament could not manage to align their positions. They were dithering between providing an affordable

high-quality universal service, while ensuring the viability of the operator, and putting in place a gradual liberalisation process. In order to create a reform for the sector that satisfied every stakeholder it quickly became essential to contribute to the public debates and do so based on the latest academic research, which was hard to come by at the time. The IDEI appeared as the obvious choice for a partnership given the knowledge and expertise of its members in fields closely related to the postal sector, such as network economics, market and natural monopoly regulation, contract and incentive theory, competition economics, etc.

What were the key milestones in this partnership?

We hit a major milestone every time we sign a new three-year contract! I would like to take this opportunity to pay a heartfelt tribute to the key figures behind this agreement over the last 10 years: Jean-Pierre Florens and Helmuth Cremer. There are too many to name, but I also want to thank all the researchers working with them and the people who we routinely called upon for help in our work and participated to our events in Toulouse and Paris. The biannual postal economics conferences⁽¹⁾ have now expanded to include media and e-commerce issues. We co-organize these events with the IDEI and they constitute key milestones in this partnership as well. Incidentally, the 9th conference will be taking place on 31 March and 1 April of next year! Other important highlights of our partnership are the publications covering some of the joint research that La Poste and the IDEI are doing. Finally, it goes without saying that Jean Tirole winning the 2014 Nobel Prize for Economics is another strong hint at the excellence of the IDEI researchers. Through this partnership, we are developing theoretical research projects ranging from public economics, competition economics

Number of postal pieces delivered every year:



Until 2002, postal activities were undergoing major growth that correlated with France's economic growth. Since then, the growth of postal volumes and GDP have diverged.

to industrial economics as well as applied research on issues specific to the postal sector or in areas that interest La Poste. This research could be presented or published in different ways, usually at the annual Rutgers postal economics conference where we present a number of papers jointly written by the IDEI researchers and the Group's experts every year.

What do you gain from this economic and scientific approach?

The partnership serves several purposes. First, there is an aspect of corporate social responsibility. The La Poste Group is proud to have contributed to the development of a world-renowned centre of excellence in postal economics. There is also obviously a desire to support our decisions with scientific research whenever it is possible, especially when it comes to regulatory issues. That is crucial in the balance of power we maintain with our stakeholders. In some areas, the economic theory isn't necessarily aligned with the Group's interests. When that happens, the inflexibility of the science behind the IDEI's research means we have to find other ways to protect our interests. Lastly, this extremely valuable partnership also helps us attract talents who are eager to work with high-level researchers while being part of the "twists and turns" of a large company. They are great additions to La Poste.

What kind of subjects have you addressed so far?

A long list of issues has been addressed since 1993. I will give you a few examples.

Among other things, the econometric research has focused on analysing the costs and efficiency of postal processes (collection, sorting, transport and delivery of the letter mail and parcels), which is important for correctly calibrating the size of the industrial machine to fit the volumes it handles. Some other projects focused on the drivers of households and businesses demand for postal products, namely the studies of the demand's price elasticity to properly adjust our rates in an environment where the demand for postal services (letters and parcels) is changing in response to the spread of new communications technologies (physical mail shifting to electronic mail) and the rise of the e-commerce, in particular. On a more theoretical level, once again the knowledge and expertise of the IDEI researchers gave us the tools to define best practices in regulating the postal sector and to make significant progress in understanding all the mechanisms at play in various sectors interacting with La Poste.

I'll cite a number of research projects at random: theoretical research on the advantages and disadvantages of various methods for calculating the net cost of the universal postal service obligations that resulted in establishing a joint method in the third European postal directive based on the definition of a counterfactual scenario (Profitability Cost method). There was also the study on the best way to finance universal service that helped pinpoint unique features of the postal sector and showed that the best solution was a compensation fund based on a per-piece

"A concrete example of what theoretical considerations can offer!"

Jean-Paul Forceville

"As a part of our partnership with the IDEI, we have conducted research on special pricing (discount rates) and specifically on the impact of 2nd and 3rd degree price discrimination in the postal sector between letter-issuing customers and aggregator-routers with no specific demand. In other words, if we give a discount should it go to the router or the customer? We developed a theory with a very concrete answer: it should go to the customer and not the router, who is the middleman. Here's the thing: the routers sued us. They went to the ARCEP, which referred the case to the competition authority. Ultimately, our position was validated and the routers' case was dismissed.

In 2014, the same issue came up in Brussels where the postal regulator had sided against the Belgian postal operator, who agreed with our take. The court of Brussels asked the European Court of Justice to resolve the matter. There was no time to write a statement of our case, we had 15 minutes to present our side knowing that the rapporteur issued a negative opinion! Well, 15 minutes proved to be enough, which is extremely rare. We managed to reverse the court's conviction and now the French theory prevails! Scientific rigour provides credibility."

tax. When the Law of 9 February 2010 was passed, the compensation fund contribution mechanism was revised accordingly. To this we can add the definition of best practices in price regulation and the analysis of public missions regarding the transport and distribution of printed press, which identified the drawbacks of such a



The project members at the IDEI 2015 meeting, in April.

La Poste is currently one of the largest companies in France with over **€22 billion in turnover.** After the government, it is the second largest employer in the country with more **257,000 employees.**

mechanism, i.e. that some of the benefits of the subsidy are diverted by advertisers on that two-sided market. To sum up, the IDEI partnership was probably one of the most profitable investments La Poste has ever made!

Conditions have changed considerably over the last 20 years. What topics and questions are you looking at now?

Things have changed a lot since 1993. Back then, the volume of letters was rising continuously and La Poste had a monopoly. As of 2015, the postal sector has been completely open to competition for over four years and the volume of letters is going down as communications are increasingly paperless. The emergence of digital technology is creating a profound shift in society as a whole and La Poste more specifically.

Changes in the Group's economic, regulatory and technological environment are forcing a re-examination of its historical business model. The digital revolution is affecting the volume of letters and traffic in post offices, the competition in express shipping is intensifying and cutting margins, La Banque Postale is changing amid increasingly strict prudential guidelines, interest rates are at a historic low level and online banking is booming.

So the questions we are considering now involve studying the appeal of post offices, a vital factor in calculating the net cost of the regional development public mission and the best size for our physical network in the digital age. There are also topics like

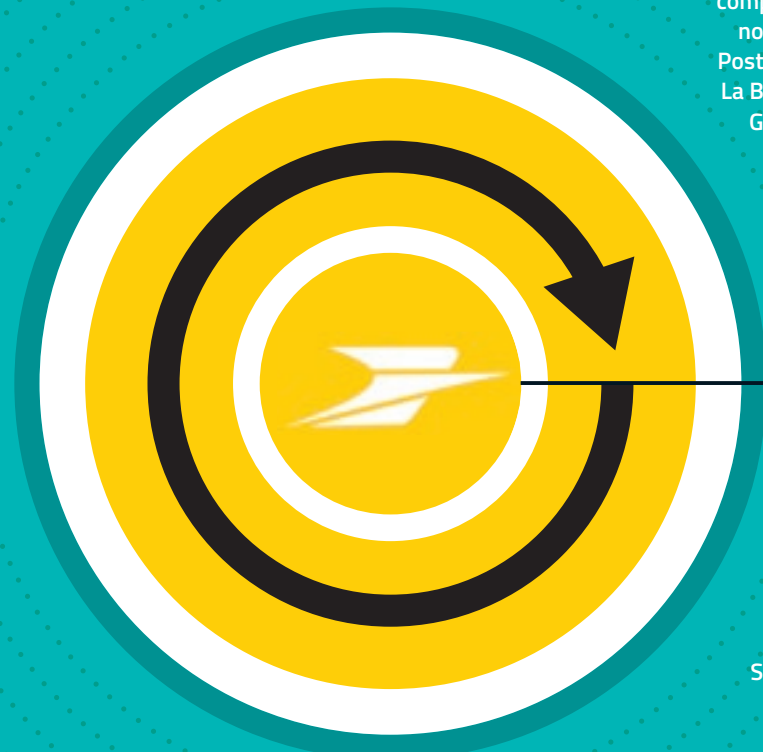
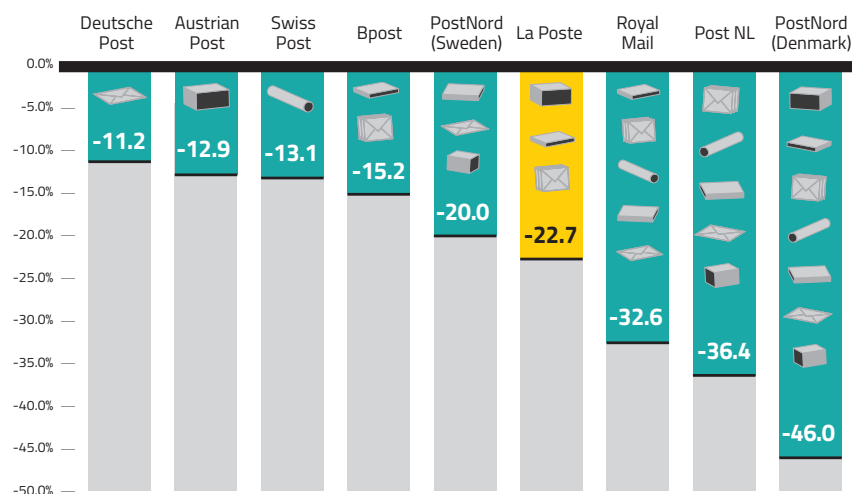
the optimal rate for parcel delivery, which is a top priority for understanding the role postal operators play in the e-commerce value chain and how the rates delivery companies use are impacting online merchants and the growth of e-commerce.

What challenges does the Group have to overcome in the future? What are your expectations for the researchers supporting your work?

Going forward, the Group will have to continue to accelerate the growth of its existing activities, conquer new areas, provide and upgrade public utility missions and develop new public services, increase its competitiveness and restore

sound economic health. The researchers who have been guiding us all throughout and are incredibly knowledgeable about the sector will help us successfully meet the Group's challenges by deciphering new domains, for example the so-called Silver Economy, the digital economy, the collaborative economy, issues regarding sustainable development, the modernisation of government action, and so on. Thanks to these new avenues of research, we can actively participate in the public debate on these topics and have a hand in making them easier to understand. ■

Change from 2007 to 2012 in volumes of letters sent by country



1477 Louis XI creates postal runs.

1576 Royal messenger offices open. Specialised in transporting process satchels, they are authorised to carry personal letters.

1632 The first post offices and most likely the first delivery system appear.

1672 The post farmer-general is created. Farmers purchase mail-coach services.

1789 Postmasters lose their privileges during the French Revolution. Directors for the 1,300 post offices are elected by universal suffrage.

1793 The first postal stage coach is created.

1830 Rural service begins. Postal workers deliver the post every other day in the country.

1879 The Ministry of Post and Telecommunications is created.

1912 The first official postal flight in France between Nancy and Lunéville (27 km).

1930 Mermoz crosses the south Atlantic.

1991 La Poste becomes an independent public operator.

2005 Law on postal deregulation to help open the sector to competition. The French Telecom Regulation Authority (ART) is asked to regulate the postal sector and is renamed the Regulation Authority for Postal and Electronic and Communications (ARCEP).

2006 1 January: La Banque Postale opens.

2010 1 March: The status of the La Poste Group, a state-owned industrial and commercial institution, is changed to a public limited company fully funded by public capital, now divided into five divisions: the Post-Parcel-Services at home division, La Banque Postale, La Poste Network, GeoPost, and the Digital division

2011 1 January: The European postal market is fully decentralised.

¹ "Ninth Biannual Postal Economics Conference on E-commerce, Digital Economy and Delivery Services", 31 March-1 April 2016, TSE, Manufacture des Tabacs, Toulouse, France

² See especially the collective work published in 2005: "Economie Postale - Les fondements" and then in 2010: "Libéralisation et Services Publics, Economie Postale."

An international graduate network

The purpose of the TSE Alumni Network Association, created in 2013, is to foster exchanges within the student community. The network is launching an increasing number of initiatives and events, and the number of active members is growing steadily. This year, a new member category has been created: the Ambassadors. This year, TSE also recruited a facilitator to coordinate all of the Association's activities. Tiphaine Texier speaks about her work with enthusiasm.

"Managing the alumni network involves having and maintaining an attractive address book: I encourage everyone to update their profiles on the **Alumni** platform, to exchange and share good practice and to "network." It also means organising social events with the support of the ambassadors to help maintain the connections people made during their studies - which is what inspired the Association's slogan: **"Keep in touch!"** My role also involves encouraging alumni to return to the School to give classes, *business talks* or as part of TSE's **Business Networking Day...** and to stay in touch, even if they graduated years ago!

I also encourage graduates to notify us in advance of internship offers, which are then posted on the **"Careers"** page of the platform for the benefit of our students and graduates alike: the network is our top priority!

Of course I don't do all that by myself: I rely on the support of the **TSE Alumni Network** Association committee, which will be renewed in November, and that of the Ambassadors located all over the world. This is a new role within the Association - Ambassadors are volunteer graduates

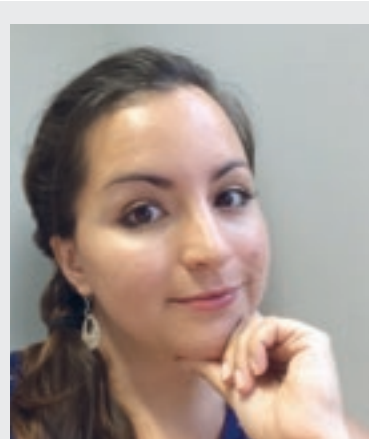
tasked with stimulating the community in their towns or regions, particularly by welcoming newcomers and organising a range of events. Since I cannot be there in person, it makes sense to take advantage of the presence of people on the ground who represent the School. Paris, Brussels, London, Milan, Montreal, the Balkans, Shanghai... The team is constantly growing, but we are still recruiting as well!

I also work with alumni network coordinators from other universities or schools: inspiration, best practice, sharing experience... *You go faster by yourself, but you go further with others!*

What projects are you currently working on? We have a number of ongoing projects. We are working on encouraging our graduates to participate in training programmes by helping with classes and providing feedback *"from the field"* to our current students.

We also want up-to-date information about our alumni: what are they doing? Where are they? This information helps us to create a relevant directory of our members and invite them to dedicated events, especially events connected with the places where they live. We are also in contact with a career guidance coach with the aim of organising an evening dedicated to management issues as well as others focusing on self-confidence, work-life balance, stress management, redeployment, etc. In parallel, we are setting up a system of classifieds, mainly focused on housing, to help people integrate into a new town they have moved to for an internship or a new job. For the moment, these activities

"An open, rich and fairly new position, with a lot of room to manoeuvre! In short, an exciting job aimed at helping our alumni and our current students - the graduates of tomorrow"



Tiphaine Texier

*TSE Alumni Relations Officer
A graduate of the IAE Lyon School of Management, Tiphaine Texier has worked in Norway and Nepal. Her career abroad has allowed her to expand her language skills and intercultural experience and gain experience in a wide range of fields: responsible tourism, support for people with autism and selling Mediterranean products to name but a few. After returning to France in 2014, she was hired at Nantes Atlantique School of Design as an international recruitment officer. In 2015 she started her new job in Toulouse, where she is tasked with managing the TSE Alumni Network Association.*

are focused on Toulouse. We are still in the early stages, but we have no shortage of ideas for improving the services we want to offer our community." ■

Contact

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Tiphaine.texier@ut-capitole.fr

 Alumni website: alumni.tse-fr.eu



The first ambassadors in the world

- | | |
|-------------------------------|--------------------------------|
| 1 MORENO Carolina Bogota | 10 COUTHU-MANTA Simon Montreal |
| 2 RAIZONVILLE Adrien Brussels | 11 LAHLOU Hakim Paris |
| 3 CAO Zhili China | 12 DUPONT-COURTADE Laura Paris |
| 4 KOICHEILA Ilektra Greece | 13 WANG Shuyi Shanghai |
| 5 CORRAL Guillaume London | 14 SALIS Romain Toulouse |
| 6 SALE Jonathan London | 15 LAFFORGUE Zoé Toulouse |
| 7 SCHUSEIL Philine London | 16 BLAYE Benjamin Belgrade |
| 8 GUIGLANO Anna Milan | 17 OZTURK Ezgi Istanbul |
| 9 CAMARA Thibault Montreal | 18 SIMONS Juri Berlin |

Benjamin Blaye Ambassadeur à Belgrade

Currently completing a Master 2 in Econometrics and Statistics and Teaching of Econometrics and Statistics. On an internship with Societe Generale in Serbia.

How are you involved with the Association?

The first stage is to bring together all the alumni in the region. Since I am currently the only TSE representative in Serbia, I had to broaden my scope of action... The Balkan area covers an extensive geographic region, so rather than organising after work events, it makes more sense to arrange themed weekends: tourism in Belgrade, a beach trip in Thessaloniki, etc. There are a lot of alumni in Greece and Turkey.

What does your role as Ambassador entail?

I only recently took on this role after passing my last few exams in Toulouse a few months ago. I can only start organising our weekend events after I have finished finding graduates in my area. I have not yet organised a local event, but I am in contact with the TSE Ambassadors in Turkey and Greece and we are going to organise a weekend in Athens this fall.

What have you gained from the Association and your role in it?

It has given me the opportunity to meet past graduates who have more experience than I do. I benefited greatly from this, even through meeting them at non-professional events. TSE has been an extraordinary experience for me and I am delighted to be able to continue it, even abroad!

Hakim Lahlou Ambassador, Paris

Graduate of the Ponts et chaussées engineering school, graduate of the Ecole Nationale de l'aviation civile, Finance Graduate of Sciences Po Paris and Economics Graduate of TSE. Head of economic studies at the Housing Finance and Economics Division of the French Department of Housing.

What does your role as Ambassador entail?

"The role consists of managing specific activities that require a relatively short-term commitment. I have also taken on a TSE student as an intern, as well as finding a work placement for another student with the Eutelsat Director of Strategy. I also took part in the School's annual Forum in 2014 and launched a research agreement between TSE and the Minister for Housing.

The Association makes it possible to meet a great many alumni pursuing various careers and to participate in interesting social events. From a professional point of view, the network offers privileged access to certain job or internship offers - or allows posters to prioritise them - and facilitates exchange with professionals in other sectors, which sometimes inspires new ideas. I particularly valued the meeting the Association organised in Paris to celebrate the awarding of the Nobel Prize to Jean Tirole. Over one hundred people attended from a broad range of schools and backgrounds."

Philine Schuseil

Future Ambassador, London

Economics graduate of the Humboldt University Berlin and TSE. Senior Associate in the Economic Consulting Department, Deloitte UK.

Why did you want to join the TSE Ambassadors' network?

"I am very interested in playing a more active role within the Alumni Network Association and representing the TSE **alumni** in London as an Ambassador. I have also had the opportunity of giving a **Business Talk** on Deloitte's Economic Consulting Department, which explained the type of work we do. In addition, I have been in touch with the School's Business Relations service about internship and job offers. I also want to stay in contact with TSE students, administration and alumni and contribute in my own way towards making the French job market more accessible to TSE students."

Getting ready since high school!

In order to promote access to higher studies in economics with real chances of success, Toulouse School of Economics (TSE) is strengthening its ties with high schools and proposing innovative academic options for French high school students in the Economics and Social Sciences stream. The partnerships it has founded with two establishments in the Toulouse area allow participants to prepare effectively to attend TSE from the outset. These partnerships will be expanded and developed further.

"Every year, increasing numbers of high-school students take part in key events such as the 'Infosup' fair and the 'Portes-ouvertes' open day. And every year, more and more of them enrol!" confirms Claire Navarro, communications officer at TSE. "The number of applications from students in the final year of high school increased significantly last year: +43% in Economics and Law, +35% in

Economics and Management and +31% in Economics and Mathematics."

In order to cope with this success, the School, which takes in around 2,300 new students every year (half of them enrolling directly as first year students), has revised its entry criteria. Since 2014, the school has gone beyond the standard French Post-Bac admissions system to establish two double-degree courses that are limited to 100 students: Economics & Law and Economics & Mathematics.

In parallel, the school is also seeking to strengthen its links with secondary schools. To this end, its teaching staff have set up an annual event aimed at mathematics and economics teachers and high-school principals. For one morning, the high school and TSE teaching staff meet and exchange views as part of a conference or a fun, interactive exercise, with the aim of providing better information to high-school students.

TSE has also set up an experimental programme with the Lycée Pierre-Paul Riquet in Saint-Orens-de-Gameville, aimed at preparing baccalaureate students enrolled in

the Economics and Social Sciences stream for higher studies in economics. It consists of two additional hours a week of mathematics, one hour of maths-based practical economics work and one additional hour of English.

This course is aimed at students with good marks in maths who are enrolled in the baccalaureate Scientific stream and who are planning to pursue further studies in the fields of economics, management, business and finance. Launched in September 2014 following preparatory work by teachers at the school, the course is highly likely to be expanded to other secondary schools in the near future.

The **A.R.T.E.** initiative, a transition year between high school and university established by the Lycée Rive Gauche, Toulouse, in 2013, has also been continued. This programme consists of establishing a bridge between secondary and higher education to combat failure and promote access to longer studies. Over the course of a year, participants extend their knowledge in the areas of mathematics, economics and English – all essential subjects for those wishing to succeed in pursuing studies at TSE.

What characteristics do participants need? *"Curiosity, open-mindedness and motivation", summarises Claire Navarro, "not to mention a flair for the mathematics that will be used as a tool for economic analysis!"* ■



Gladys Nyoung Class of 2014

"I was interested in economics, but after doing the Economics and Social Sciences stream at Lycée Rive-Gauche I chose this programme because I wanted to improve my level of maths and English. The progress I have made in microeconomics, maths and English will certainly help me going forward. In addition, this preparatory year allows for a smooth transition between high-school and university life. The support of the **'Passeport Avenir'** team has also encouraged me in my career path. I recommend this programme to any motivated person with a love of economics and maths who wishes to start university with a solid foundation."



Anaïs Escanes Class of 2014

"I graduated from the Scientific stream for the baccalaureate at Lycée Pierre de Fermat in Toulouse. I didn't feel ready to move straight on to university-level economics studies at TSE, so I chose the **A.R.T.E.** course. What are the strong points of the course? The fact that it makes it possible to focus on succeeding in economics studies. The classes allow students who have graduated in the scientific stream to learn more about economics and the world of university. This also helps those who are hesitating to focus more clearly on the studies they wish to pursue."

Save the date

> 10 October 2015

High school meeting - Presentation of the School and conference by Paul Seabright on "Sexonomics"



> 27 November 2015

Register to the 4th edition of the Business Networking Day and join the numerous companies and institutions already in the TSE partnership network!

> 27 November 2015

General Assembly of TSE Alumni Association – Election of a new board.

> 28 November 2015

TSE 2015 Graduation Ceremony – Cujas amphitheater

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By the numbers:

Here are the results from a poll conducted 6 to 9 months after graduation on our graduates' employment.

47%



of our graduates work abroad.

88%



of our graduates have a job.

93%



of our graduates have an executive position.

38%



of our graduates have been recruited following their Masters internship.

85%



of our working graduates feel that their position matches their Masters speciality.

Economics, a living art in Toulouse



TSE is supporting the
chamber choir

les-éléments.
choeur de chambre joël suhviolle

