

THE TOULOUSE SCHOOL OF ECONOMICS MAGAZINE

TSE MAG

Living economics

#8

SPRING 2015

Nutritional taxes:
do they work?

AXA makes a pledge
for research

French economists:
a view from Boston

The Bank of France
rewards the best researchers

The Economist, the Market and the Nobel Prize

Special Issue



2015 begins with a particularly challenging political and economic climate: Eurozone crisis, concerns about stagflation, energy gluts, unemployment, low growth rates, unsolved global warming challenges, wars and terrorism... In this context, the role of academic economists in supporting decision makers with science-based analysis is increasingly critical. Researchers must strive more than ever to provide timely, solid information on the nature and magnitude of the different phenomena in order to help industries adapt and policy-makers formulate appropriate policy responses. TSE members aim to give their best to this collective endeavour towards optimal policy-making.



These times of radical changes and global crises also bring to light the need to adapt economics teaching to the world we live in, and provide our economists in training with new tools to analyse the world they will soon be contributing to.

The Toulouse economists have endeavoured since the creation of the TSE School in 2011 to broaden our curriculum and embrace new methods. Thanks to the close links forged with the business / policy world over the past 25 years, our professors have been able to put into place a number of actions to connect our students to the real world. Examples include our weekly series of business talks, our annual business networking day, our project-based learning programme, our international internship opportunities and our active alumni network. We also involve our students in interactive experiments, and send them out to companies to see the problem business leaders are facing. There is no better way to learn how markets work and how regulators manage them than to see it with one's own eyes.

Our students particularly appreciate evidence-based economics, which notably helps them to handle data (BIG data!) and filter the information they find there. As our TSE colleague Paul Seabright recently pointed out, economics teachers today are no longer "gurus" but rather "gatekeepers" to information. A challenging but fascinating shift for the teaching community to adapt to.

Our focus also needs to reach out beyond economics into the other sciences. As our societies today show increasing signs of altruistic behaviour, both our research and teaching communities need to link up to sociology, psychology, politics, history, religion, biology, and many other disciplines to help build and test our economic models, taking a leave from the traditional view of rational agents. At TSE, we work closely with our associated research centre, the Institute for Advanced Study in Toulouse (IAST), with this in mind. Some fascinating and unexpected synergies are being born of these collaborations. Our economics understanding can only be richer for these exchanges. Our teaching faculties can also learn from other disciplines, notably biology, that excel in providing a multi-faceted understanding of today's realities.

Christian Gollier, Director - Toulouse School of Economics
Jean Tirole, Chairman - Toulouse School of Economics

The TSE community is proud to present you the all-new TSE mag, with a revamped design and broader, more in-depth contents. We hope you'll enjoy it!



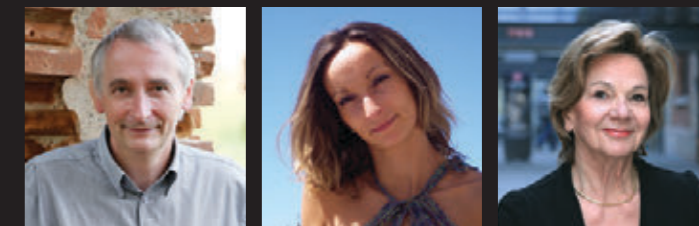
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Expertise Rewarded

Thierry Magnac

elected to the Council of the Econometric Society



The Econometric Society is an international learned society which publishes the journal "Econometrica" as well as two other journals dedicated to economic sciences (Quantitative Economics and Theoretical Economics). It organises major international congresses such as the EEA-ESEM, the annual summit of European economists and econometricists, held jointly with the European Economic Association (EEA).

"The Board discusses congresses, the nominations of editors and the development of the Econometric Society" Thierry Magnac explains, "It meets once or twice a year around the time of the American or European conferences. I will be part of that process and it is essential for TSE that one of its members be in a position to pass on the opinions of the TSE community about the developments in the main learned societies of our profession." Thierry Magnac is a member of TSE and a professor at l'Université Toulouse 1 Capitole. His research focuses on empirical questions in the economics of education, work or consumerism and on methodology in microeconometrics.

Bruno Jullien & Thomas Mariotti

Bruno Jullien and Thomas Mariotti, both CNRS research directors at TSE, have also recently been elected as fellows of the Econometric Society. Our congratulations to all three!



www.econometricsociety.org

Christian Hellwig

elected to the Board of the European Economic Association



The European Economic Association (EEA) is the biggest association dedicated to economic sciences in Europe. It publishes the Journal of the EEA and organises congresses, notably the EEA-ESEM, organised by TSE in 2014 with 1500 participants. Having obtained his PhD at the London School of Economics in 2002, Christian Hellwig was Assistant Professor at UCLA before joining TSE as Professor of Macroeconomics, in 2010. He was elected for a 5 year term, during which he will take part in decision making by the Council of the association as a representative of TSE.

www.eeassoc.org



Yinghua He

awarded "the Young Researcher in Economics prize 2014"

On 27th November last year, the Banque de France Foundation awarded the Young Researcher in Economics prize to Yinghua He for his research work on "Answering policy questions with carefully designed empirical strategies".

www.banque-france.fr

Nicolas Treich

appointed co-editor-in-chief of the Geneva Risk and Insurance Review (GRIR).

Published twice a year, this international journal provides a forum for exchange on all aspects of risk and insurance economics, with emphasis on theoretical, empirical and experimental research in these fields. Director of Research at INRA, member of LERNA and of IDEI, Nicolas Treich is joining his colleagues Christian Gollier and Bruno Jullien as co-editor-in-chief of this journal. His research focuses on the theory of risk and decision making, environmental economics and the analysis of the cost-benefit ratio. He has published several scientific articles, notably on the precautionary principle, the value of a statistical life and climate policy. He has organised several international congresses and written various articles and reports for general readership, on risk-management policy.



Nicolas Treich
TSE / INRA researcher
Affiliated researcher at
CESifo Group Munich

Events

More and more companies attending TSE's Business Networking Day

42 companies came to meet our students at the 3rd edition of the Forum organised by TSE last November. There were opportunities for jobs and internships. The wide range of talks and presentations given by professionals throughout the day gave the students invaluable insight into the work of the companies they may join later.

Forum 2014 in video:
youtube.com/TSEchannel



The class of 2014 in the spotlight

"The graduation ceremony marks the end of your studies... and the beginning of your career!" highlighted the patron of the 2014 class, Anne-Juliette Hermant, Director of Development and Training at AXA, on 29 November, during the ceremony led by Bruno Sire, President of l'Université Toulouse 1 Capitole and Jean Tirole, Chairman of the Jean-Jacques Laffont Foundation - TSE.

The ceremony in pictures:
youtube.com/TSEchannel





The fall in oil prices, unprecedented since the 2008 financial crisis, is "good news for the world economy". So says Christine Lagarde, Managing Director of the International Monetary Fund (IMF), who considers that a fall of 30% in the price of 'black gold' should "lead to a surplus (Editor's note: in growth) of 0.8% for most advanced economies, all of which are oil importers"

So, good or bad news? Give us your opinion online and watch the survey results as they come in live on debate.tse-fr.eu



Announcement of the Jean-Jacques Laffont Chair in Digital Economics

The French Minister of Culture and Communication, Fleur Pellerin, announced on 12 February the launch of this new Research Chair which will lead Toulouse researchers and their colleagues from around the world to shed academic light on the challenges of digitalization in our societies. This Chair will allow for several recruitments at Toulouse School of Economics and at the Institute for Advanced Study in Toulouse, numerous conferences and workshops around the subject as well as a yearly international forum, which will be held in Paris, gathering the best researchers in Digital Economics. Disciplines such as Psychology, Sociology and Economics will be at the heart of these activities, exchanging views between disciplines in order to better understand these new phenomena.



"The digitalization of society affects all human activities; it is at the heart of the economic and cultural shifts of the 21st century. The Chair aims to contribute to the understanding of these developments."
Jean Tirole

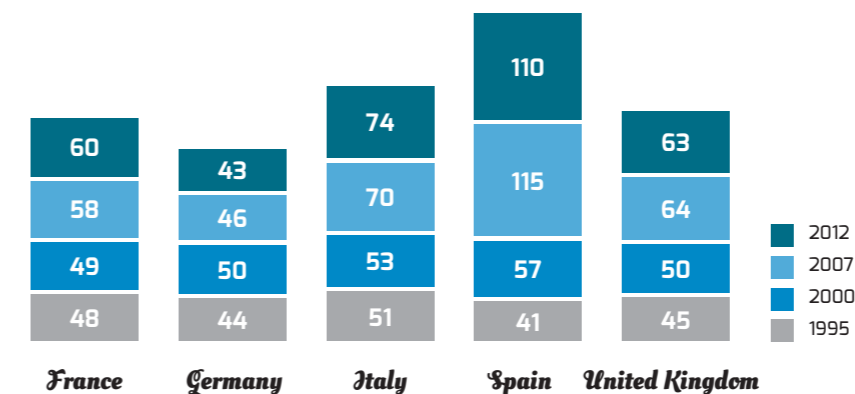
Lending to SMEs: targeted measures

Since the beginning of the crisis, business insolvencies have shot up by 25%. Is this situation caused by difficulties in accessing funding in a context where banks have had to adjust to new prudential requirements? The French Economic Analysis Council tells us more:

TSE researcher **Augustin Landier** worked with Jacques Cailloux (Nomura) and Guillaume Plantin (Science Po Paris) on the latest "Note from the Economic Analysis Council" which highlights the funding difficulties of the SMEs and very small businesses targeted: those difficulties affect the smaller companies, they concern

short-term financing needs rather than investments and are not unrelated to the observed lengthening in payment times. The authors focus their recommendations on ways to get over the asymmetries in size and information which handicap these companies both in keeping to payment deadlines and accessing credit.

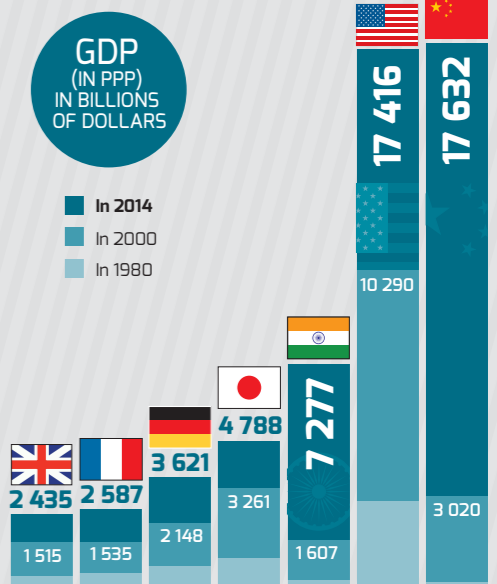
BANK LENDING TO BUSINESSES, IN % OF GDP



www.cae-eco.fr

Source: French National Accounts, Eurostat.

China has overtaken the USA to become the world's largest economic power



According to figures from the International Monetary Fund, the Chinese GDP has overtaken the American GDP for the first time since 1872. China has thus become the largest economic power in the world. Expressed in purchasing power parity terms (PPP), the Chinese gross domestic product was 17 632 billion dollars in 2014, whereas the USA's was 17 416 billion.

Save the date

- 26 & 27 MARCH 2015**
Conference on electoral behaviours, institutions and reform
Conferences jointly organised by researchers from the IAST and TSE. James Synder, professor at Harvard will be talking about "the role of the Primaries in the American Electoral System"
- 15 & 17 APRIL 2015**
IMEBESS The International Meeting on Experimental and Behavioral Social Sciences
IMEBESS will be organized by the IAST and TSE. It intends to bring together researchers from all around the world in all areas of the social sciences who are interested in experimental methods.
- 22 & 23 MAY 2015**
Conference on Financial Econometrics
TSE brings together top international specialists in the field for this annual conference
- 28 & 29 MAY 2015**
European Workshop on Health Economics
TSE is organising the 16th workshop in this international series gathering researchers in Health Economics
- 4 & 5 JUNE 2015**
Economics and Biology Workshop
TSE alongside IAST, institute for pluridisciplinary research, is organising the third edition of this workshop on the threshold between economics and biology in Toulouse
- 09 & 10 OCTOBER 2015**
Workshop: industrial organisation
Jointly organised by the institute for Industrial Economics and the Centre for Studies of Insurance Operations. This 14th edition of the workshop will throw new light on all of the issues around industrial organisation and insurance
- FROM 30 NOVEMBER TO 11 DECEMBER 2015**
Paris Climate 2015
France has been officially named as the host country for the 21st Climate Conference in 2015. Ahead of the event, the TSE researchers Nicolas Treich and Stefan Ambec offer a series of comments and analyses: debate.tse-fr.eu

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

What is the point of competition?

This book, published on 30th September last year, compiles the answers of more than 100 contributors amongst whom Charles Beigbeder, Marcela Lacub, François Hollande, Arnaud Montebourg, Michel Sapin, Nicolas Sarkozy, many different companies and **Claude Crampes** and **Thomas-Olivier Léautier**, both researchers at TSE and specialists in the energy economics.

aquisertlaconurrence.org



VINCENT RÉQUILLART AND CÉLINE BONNET

Taxes to fight obesity?

Over the last few years, we have been surrounded by more and more nutritional information, on posters, in advertising campaigns and elsewhere. The French, for example, know that they must have their “5 a day”, that they should “eat less, move more”, they even know that “milk is full of natural goodness”. But nothing is working! Obesity rates are creeping up.

To deal with what is fast becoming the world’s top public health problem, the French legislator opted to get heavy-handed: since January 2012 all sweetened drinks have been taxed, even those using artificial sweeteners. Was that the bright idea we were waiting for? Maybe not. A very thorough French study challenges our assumptions. Two TSE researchers, Céline Bonnet, INRA research fellow and Vincent Réquillart, INRA research director and member of the Institut d’Economie Industrielle, have evaluated the impact of nutritional taxes. Vincent Réquillart tells us about their findings.

Where do nutritional taxes stand among the various initiatives?

They are not widely used yet, but they have their place among the measures to be taken to improve eating habits – acting on prices in order to influence consumer choices is a proven method. Most current nutritional policies rely on informing the consumer, but their impact is weak. There is also the option of influencing supply by encouraging the food industry to manufacture healthier products, with less sugar, less salt, less fat. But that is a lengthy, necessarily complex process.

Most research assumes that the tax is passed on to the consumer. There’s no reason that that should be the case!

Since prices represent one of the primary means of action, this topic has given rise to significant international research. Several countries have implemented nutritional taxes, often on soft drinks. These are recent policies, consequently we cannot yet measure their actual impact. We have to use modelling to evaluate their potential impact. We simulated the consequences of two policies: a tax on sugar-sweetened soft drinks and a tax like the one currently in use in France, on all sweetened soft drinks (sugar or artificial sweeteners).

What makes your work different to other research?

The fact that we take into account the way the industry and retailers react via their pricing decisions. Most research assumes that the tax is passed on to the consumer. There’s no reason that should be the case! Firms are not passive, they develop strategies. They can raise prices more than is strictly necessary to cover the tax or, on the contrary, reduce their profit margins so as to maintain their sales.

That is what we showed. When an excise tax is applied - x centimes per litre - it is more than passed on to the price the consumer pays. If the tax is 10 centimes per litre and the price of the drink is 1 euro, the new price for the drink doesn’t go from 1€ to 1.10€ but to 1.12€ or 1.15€.

Whereas if the tax is set as a percentage, it is not fully passed on to the consumer.

At the same time, there are substitutions within the same family of drinks, or shifts in consumption from taxed drinks to other drinks.

So does the nutritional tax actually contribute to lowering sugar consumption?

Yes, when the tax is only applied to sugar-sweetened drinks, the consumption of added sugars is reduced by 440g/year thanks to the substitution of “light” versions of products for their sugar-sweetened equivalents. This is not negligible but it remains low in relation to the health issues at stake. In fact, consumption of soft drinks is not particularly high in France (the British consume two and a half times more than the French and the Americans five times more).

When the tax concerns all drinks (as it does in France), the substitution with light drinks (whose prices also go up) no longer happens. Total consumption of sugars increases because of consumption shifts to fruit juices.

Taxing all drinks, be they sugar-sweetened or light, is counter to health recommendations. In practical terms, the tax implemented does not reach its goal of reducing sugar consumption. It acts primarily as an instrument to increase the State’s budget revenue.

If we take another example: tobacco, the price increases have indeed had the intended deterrent effect... haven’t they?

It’s all in the timing! In the case of tobacco, there was a set of actions with the same aim: informative advertising campaigns, the ban on smoking in public, pricing policy and above all, long term measures. And the levels of taxation were much higher than for food. If the aim is to be efficient from a health point of view, the important notion is that of a coordinated set of measures, all aiming for the same result.

THE MAIN NUTRITIONAL TAXES AROUND THE WORLD (EXCLUDING ALCOHOL)

COUNTRY	TAXES	TYPES OF FOOD
USA	Between 0 and 7% depending on State	Soft drinks (ad valorem)
	Between 0 and 0.58 €/l depending on State	Soft drinks (excise)
Finland	0.075 €/l	Soft drinks
	0.75 €/kg	Sweetened foods
Hungary	0.65 €/l	Sweetened syrups
	0.02€/l	Soft drinks
	0.13 à 0.81 €/l	Energy drinks
	0.42 €/l	Other ready-to-use sweetened products
	0.81 €/l	Savoury snacks
Norway	1.62 €/l	Jam
France	0.85 €/l	Sweetened foods
	0.075 €/l	Drinks containing added sugar
	0.075 €/l	Sweetened drinks
	1 €/l	Energy drinks



Source: Economic briefing IEM - sept 2014

Wouldn’t it be a possible solution to make healthy products more accessible?

That is what was done for cars with the bonus/penalty system. But the intended effect will only become clear in the longer term. In the case of food, defining what is good and what is bad when dealing with a large number of nutrients, is complex. What’s more, eating habits change very slowly.

In general, inducing changes between categories of products - for example reducing consumption of fatty products and eating more vegetables - is very difficult even if the health benefits would be significant! Making changes within the same category is easier, for example consuming drinks which are less sweet instead of very sweet drinks. Although individual gains are more limited, in terms of public health, those changes can have a noticeable effect

because a larger section of the population is concerned. This is an important point. Consequently, I lean towards this strategy which requires far less change to eating habits and could also encourage firms to reformulate their products.

So, paradoxically, the least stringent policies can actually be the most successful, is that right?

Not always! An initiative in the UK concerning salt content led to a voluntary agreement to reformulate food products. But with a strong constraint which threatened the industry with strict standards if food composition didn’t change for the better... Success guaranteed! Having said that, despite all the measures implemented, obesity has not been eliminated.



Vincent Réquillart
TSE / INRA / IDEI researcher



...

So the authorities pursue their search for efficient measures, and the debates over taxation policies are far from over.

In the UK, more than 2/3 of adults are overweight. A report published by Public Health England (PHE) states that the various health problems due to obesity cost almost 11 billion pounds every year (13.7 billion euros).

Which other aspect is worth looking into?

We intend to pursue our research into the notion of reformulation by extending our work in a new direction: taking into account environmental effects. Because when eating habits change, the effects are not only felt on health but also on the environment. The food chain is responsible for between 20 and 25% of greenhouse gas emissions.

Do diet recommendations have a positive or a negative effect on the environment?

And inversely, could environmental policies have an effect on health? It's a question of throwing light on the notion of sustainable food.



Céline Bonnet
TSE / INRA researcher



> Scientific article: Bonnet Céline and Réquillart Vincent, 2013. *Tax incidence with strategic firms on the soft drink market* Journal of Public Economics, 106: 77-88.

> Article for more general readership (in French): Bonnet Céline and Réquillart Vincent, 2014. *What can we expect from nutritional taxes?* INRA Sciences Sociales, n° 2/2014.

Sugar consumption in the world

Since 1990, sugar consumption in France has stabilised at 35kg/year/capita, having been over 45kg in 1965.

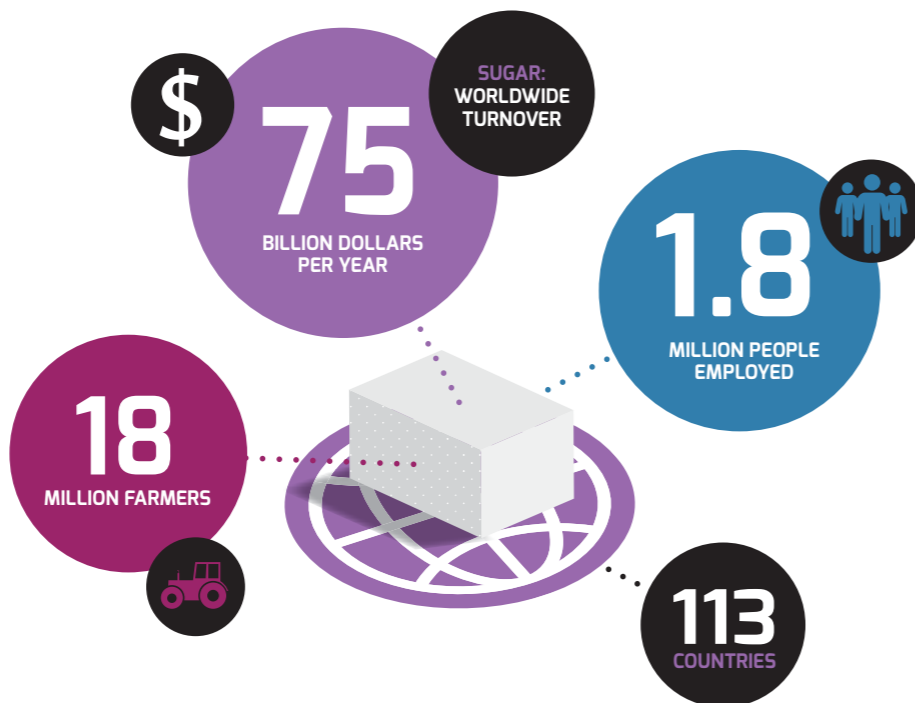
The French have consumed sugar at a relatively stable rate for years now, with consumption varying between 25 and 35kg/year/capita. This is well above the world average, which is around 20kg.

But the world consumption record goes to the inhabitants of Singapore with 84.7kg/year/capita!

Well ahead of Costa Rica and their 51kg or New Zealand and their 48kg.

In 2013-2014 the consumption of sucrose is estimated at around 25kg/year/capita, or an average of 70g/day. This includes sugar consumed directly and sugar incorporated in sweetened products.

Source: INCA/CREDOC 2010



MARIE-FRANÇOISE CALMETTE *et al.*

Quality: a Chinese puzzle

Quality goods do not always sell, even if there are consumers willing to pay their price on the market. What explains the domination of low-quality and low-price goods? In their recent paper "Quality in open markets: how larger leads to less", Calmette *et al.* demonstrate that differences in home market sizes and predatory strategies by firms of large emerging countries can shut the production of high quality goods down.

It is a well-known fact that the globalisation of markets has contributed to the boom of the emerging Chinese giant. Since 2009, China is the largest exporter of goods in the world, and will remain so. Thanks to inexpensive costs of production, Chinese firms make low-priced and low-quality electronics, clothes, toys and other manufactured goods that flood markets around the world. Western economies have welcomed the trade, as the entire range of quality goods are available to tailor to consumer preferences on all markets. Initially, a simple division of labour was expected: small developed economies would produce expensive goods for high-end consumers, while the firms of the large emerging Chinese economy would satisfy the demand for low-priced, low quality goods. But the actual context has revealed an unexpected pressure on firms producing quality goods for demanding consumers. In some cases, such as in clothing, free trade leads to less diversity of quality amongst manufactured goods.

One-way trade and predation

There is no account of this pressure in current economic literature. In general, it is predicted that firms competing for the shares of a global market enter a non-cooperative game where they will "leapfrog", differentiating the quality of the goods they offer when markets open up. The firms of the large emerging economies will meet the demand of the high-end consumer to adjust their quality upward, while the firms of the small rich economies will adapt their supply to the willingness to pay of their potential consumers on the emerging market. In the model established by the authors, the two-way trade is actually unlikely to occur.

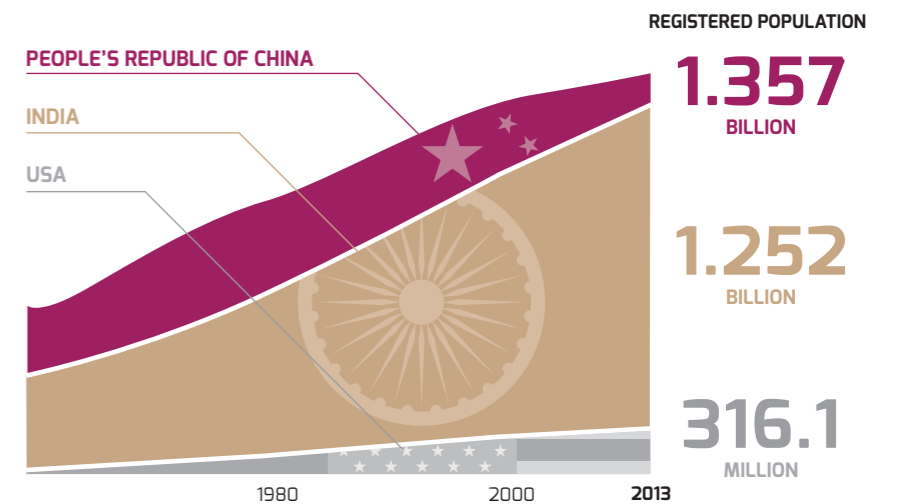
Why? The size of the domestic market for the emerging economy firms allows them to behave as leaders. They can avoid paying the price of adapting their quality. In sum, they will maximise their profit by imposing their model of mass-production of low-priced, low-quality good on their competitors. In other words, the structure of incentives faced by the competing firms is distorted in favour of the actors of the emerging economies when their domestic consumers have a low willingness to pay for quality. This is not just a question of state of affairs, however. Circumstances will allow firms of the large emerging economies to deploy predatory strategies. When a firm exports without adapting its quality, it will be able to do so at a price that will prevent its high-quality competitors from seeking refuge in other strategies.



Marie-Françoise Calmette
TSE / UT1 researcher

The established models do predict, for instance, that the firms of rich and small economies will not be able to face the costs of other increases in quality to ease up the competitive pressure.

CHINA IS THE MOST HIGHLY POPULATED COUNTRY IN THE WORLD, WITH THE LARGEST DOMESTIC MARKET



Source: World Bank, United States Census Bureau

...

Size matters

This may be a typical Chinese problem because of the size of its domestic market. This is not about the costs of wages or production. Other emerging economies have not seemed able to yield the same constraints on developed economies. The research and models defended here highlight the direct link between the size of the domestic market and the capacity of firms to impose their strategy, preying on high-quality competitors. While the decrease of diversity in the quality of goods is hence explained, new questions remain to be addressed. Chinese exports in recent years have substantially increased in quality, especially in the domain of high technology. Future research will look to explain the link between size and this leapfrog effect. ■



> *Quality in Open Markets: How Larger Leads to Less.*
Marie-Françoise Calmette and Maureen Kilkenny, Catherine Loustalan, Isabelle Pechoux and Christian Bernard

www.tse-fr.eu/publications

ANDREA ATTAR, THOMAS MARIOTTI AND FRANÇOIS SALANIÉ, RESEARCHERS AT TSE

The client is king

The recent health insurance reform wave has led to a revival of important policy debates related to adverse selection: although health is a public service almost by definition, private insurance is expected to play a greater financing role. Thus, finding the right balance between public and private health coverage, mandatory and voluntary health insurance, and building the appropriate regulatory framework are key questions in current affairs, both in Europe and in the USA.

At some point in their lives, everyone will need access to healthcare or medical treatment. The unprecedented rise in the cost of healthcare is challenging businesses, households and governments alike, making the subject a magnet for controversy. Furthermore, while health care costs are steadily increasing, higher cost does not necessarily translate as better quality. For example, if we compare the French and American systems, not only are French citizens healthier than the U.S. population, but per capita spending on health care in France is also roughly half as much.

France relies on a mixture of public and private funding, as does the U.S. But unlike Americans, every French citizen has access to basic healthcare coverage through national insurance funds, to which both employers and employees contribute. Some 90% of the population also buys supplementary private insurance to provide benefits that aren't covered, and

the government picks up the tab for those out of work who cannot gain coverage through a family member. In the US, only around 25% of individuals opt for additional, private coverage. In this context, there is clearly room for improvement. **Andrea Attar, Thomas Mariotti and François Salanié** give us one of the keys to success: in a world where insurees might buy several insurance policies from several distinct insurers and supply is carefully regulated to avoid cross-subsidies between contracts, coverage can be efficiently provided by the private sector.

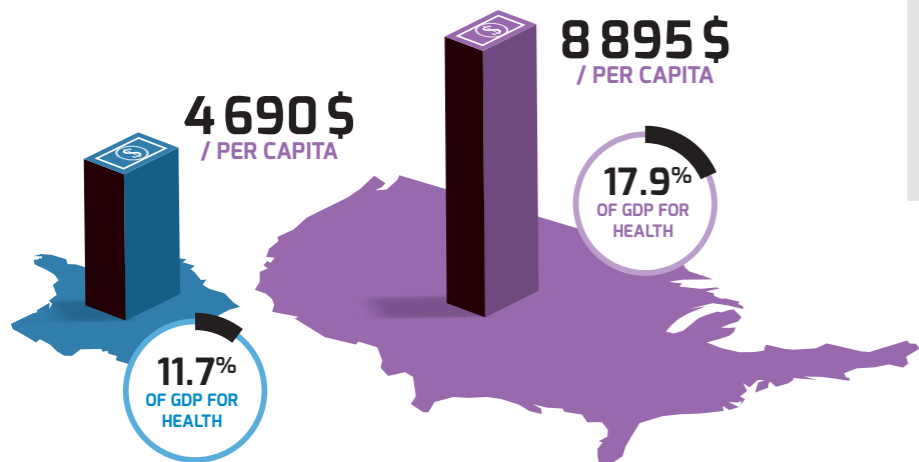
Unlike traditional policy recommendations from exclusive models of competitive insurance markets under adverse selection, consumers remain sovereign in their decisions to purchase insurance, competition between firms ideally substitutes taxes and subsidies, and there is no need to make basic coverage mandatory. ■



> **Andrea Attar, Thomas Mariotti and François Salanié.**
"Multiple Contracting in Insurance Markets: Cross-Subsidies and Quantity Discounts". *TSE Working Paper*, n. 14-532, 7 October 2014

www.tse-fr.eu/publications

SPENDING ON HEALTH IN FRANCE AND IN THE USA



Source: World Health Organization / World Bank

The Nobel Special issue



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Creative visions of the Nobel Prize



10
DECEMBER
2014



The Highlights of the Ceremony

On 10th December, the anniversary of the death of Alfred Nobel, the proud laureates attend a ceremony whose meticulous protocol is timed to perfection, at the Stockholm Concert Hall.

The ceremonies, rehearsed on the very morning of the prize giving, are presided over by the sovereign of Sweden or of Norway, before the royal families, representatives of civil society, diplomats and many dignitaries, all in full regalia.

A symphony orchestra accompanies the proceedings. Following the ceremony, there is a banquet for 2000 guests. Dishes arrive in carefully choreographed procession, announced by fanfares. Each of the laureates, in white tie and tails or evening gown, hears a short speech praising their work. While standing assistants bow

slightly, the laureate walks across the floor to the King who presents them with the prestigious medal.

Perhaps the most surprising element of the Nobel ceremonies actually takes place 3 days later on 13th December, Saint Lucy's day, symbol of light: numerous young Swedish women and men, dressed in white robes, line up at the foot of the laureate's bed to awaken them singing Saint Lucy's song. ■



The Economist, the Market and the Prize

13 October 2014, around midday. TSE chairman Jean Tirole was working in his office with a colleague on an important research funding project. His mobile phone began to ring incessantly but, keen to concentrate and reluctant to disturb his colleague, Jean Tirole did not pick up until the 6th call when, seeing the +46 (Sweden) prefix on the screen, a sudden doubt crept into his mind as to the identity of the caller.

With profound apologies to his colleague, he said "Céline, I think I had better take this call..." and from then on began the "Nobel whirlwind", as we like to call it here at TSE. The day of no return, the great exciting news that was to bring joy and pride to Jean, his family, and the whole academic community around him, both at TSE and worldwide.

Two months and a very exciting journey later, Jean Tirole received his Nobel prize from the King of Sweden during a week of incredible festivities. Jean's words on receiving the prize

"The great economist John Maynard Keynes once wrote: "If economists could manage to get themselves thought of as humble, competent people on a level with dentists, that would be splendid."

83 years and much research later, we would perhaps aspire to be compared with "meteorologists" or "doctors", whose scientific accomplishments have been truly outstanding and yet have to face challenges that are rather down-to-earth. Our failure to foresee or prevent the financial crisis is a sore reminder of the dangers of hubris. True enough, we had worked on most of its ingredients. But like a virus that keeps mutating, new dangers emerged when we thought we had understood and avoided the existing ones.

The need to be humble applies also to the field that was rewarded by the Prize. Recognizing that industries are different from each other and evolve rapidly, researchers in industrial organization have patiently built a body of knowledge that has helped regulators to better understand market power and the effects of policy interventions, and helped firms to formulate their strategies. They have thereby contributed to making this world a better place, the economist's first mission. Yet, there is so much we still have to learn, and the world changes faster than our understanding can keep up.

Humility is not easy to preserve when receiving such a prestigious award. Albert Camus in his acceptance speech wondered how he, "rich only in his doubts and his work still in progress, could cope with being at the center of a glaring light." His answer was that he could not live without his art. The great French scientist Henri Poincaré described the unmatched pleasure of discovery: "Thought is only a flash in the middle of a long night. But this flash means everything." Wisdom therefore encourages me to return as soon as possible to my lab, to



the colleagues to whom I am indebted for the Prize, in short to the wonderful life of a researcher. But I shall be profoundly and permanently grateful to the Committee for the immense honor it has bestowed upon me, and to the Nobel Foundation and Sweden for their astounding mission of drawing attention to Science year after year." ■

Jean Tirole

Nobel Prize Banquet, Sweden, 10 December 2014.



> Relive the Nobel Prize lecture:
www.nobelprize.org



> Jean Tirole biography, publications and CV:
www.tse-fr.eu
> Official resources on the Nobel Prize:
www.nobelprize.org

All you ever wanted to know about the Nobel Prize

There are astonishing statistics to be found on the Nobel Foundation's website...



Why Jean Tirole?

“Jean Tirole's Nobel Prize has generated much excitement for those of us working alongside him at Toulouse School of Economics (TSE). Tirole's prize comes as recognition for over 30 years of work on a wide range of topics, from banking and finance to the regulation of network businesses.” as Assistant Professor Daniel Garrett writes in an article originally published in *The Indian Express*.

The Nobel committee's award specifically focuses on Tirole's "analysis of market power and regulation". There are two central questions. First, how will firms behave when there are only a few of them in the market? What prices will they set, what range of goods will they offer, and what will be the quality level of these goods? Second, if competition among firms is insufficient to constrain prices, what policies should regulators use for the benefit of consumers and society at large?



Daniel Garrett
TSE / UT1 researcher

To answer these questions, Tirole has championed the approach offered by information economics, which centres on the role of information that individuals and firms hold privately. A classic example is the regulation of a firm's pricing, say a privately owned network that supplies electricity to homes and businesses. Such distribution networks are examples of "natural monopolies": firms that face no competitors because replication of their infrastructure is infeasible or too costly. Other examples include railroads, ports and phone lines.

The question for a regulator of a natural monopoly is how to set the firm's prices, given that it has better information about its technology. One possibility is to simply let the firm recover all of its costs. But this gives the firm's managers little reason to reduce expenditures. Indeed, the management might engage in wasteful spending that benefits only themselves, knowing that the firm will be reimbursed. Alternatively, the regulator could fix a price that does not depend on the firm's cost. The firm then keeps any reduction in expenditures for itself; that is, there are strong incentives to reduce spending. Unfortunately, this also means that very efficient firms make

large profits to the detriment of consumers. The contribution of Tirole, together with Laffont, was to derive the optimal incentive scheme. They showed that the optimal scheme lies between the two extremes. Optimal regulation balances incentives for efficiency against reductions in the firm's profits.

Laffont and Tirole also studied dynamic models of regulation, noting that regulators do not set firm incentives once and for all but typically revise them over time. They analysed the problem of a regulator that cannot commit to its future policies, showing how a firm will be led to reveal its true costs only gradually.

Tirole has considered a host of other issues, specific to different markets. Together with Jean-Charles Rochet, he has been a leader in the study of platforms operating in "two-sided markets". Here, a platform is a firm that provides services to users on each side. Credit cards provide services not only to cardholders but also to merchants who accept these cards. Newspapers not only attract readers, but also sell advertising space to companies that want to reach

these readers. Tirole studied pricing and competition in these markets, influencing thinking on the regulation of credit-card interchange fees (the fees paid by a merchant's bank to a customer's bank).

Another example is his study of "patent pools" (in collaboration with Josh Lerner), where companies come together to cross-license patents needed for a given technology. Such arrangements seem increasingly important in high-tech industries such as software development and biotechnology. However, because companies set prices for the pooled patents cooperatively, it is natural to worry that the practice could hurt consumers.

Lerner and Tirole argued that it is difficult to assess whether this is the case, and that it depends on the market in question. But they were still able to provide robust policy advice.

Tirole has also studied regulatory issues in banking and finance, of special interest in view of the recent financial crisis. He studied the implications of government bailouts in banking and considered how a government can restore a frozen asset market - the dilemma that was faced in the US market for mortgage-backed securities.

As these examples attest, Tirole's prize was not rewarding a single contribution but a wide-ranging body of work. He has been successful in identifying topics of importance for practitioners, such as regulatory policymakers. The running theme is careful modelling of the incentives faced by individual actors. He has devised models that are detailed enough to capture the relevant complexities, but simple enough to be accessible to a wide readership of economists.

"On a sombre note, it also comes at a time when TSE members are commemorating a decade since the passing of Tirole's collaborator, Jean-Jacques Laffont, who, Tirole noted, "would have deserved to be with me" in receiving the prize."
Daniel Garrett

"This is a great day for us, Jean has made the whole profession proud, it's wonderful."

Tore Ellingsen, Nobel Prize in Economics Committee chairman

"Jean has been a tireless institution builder, establishing Toulouse School of Economics as a preeminent place for thought and training in continental Europe. He is also a terrific mentor and all-round nice guy."

Josh Lerner (Harvard Business School), co-author over last 15 years

"Jean Tirole and his team have firmly pinned Toulouse on the world map of economics. On behalf the city, I express him our great admiration."

Jean-Luc Moudenc, Mayor of Toulouse

"Thanks to Nobel prizewinners Patrick Modiano and Jean Tirole, France has emerged as a country of great knowledge. I am so proud."

Geneviève Fioraso, French Secretary of State for Higher Education & Research

"Jean Tirole's Nobel Prize shows that the ERC is clearly funding the best of the best - researchers who truly push the frontiers of knowledge. Europe is and will remain on the map when it comes to first-class research."

Carlos Moedas, EU Commissioner for Research, Innovation and Science

"Jean Tirole nearly ruined my teaching career (...) always very polite, he repeatedly asked very penetrating questions."

Eric Maskin (Harvard), Nobel Laureate 2007 & Jean's PhD advisor

Off the Cuff

TSE Mag was at the Stockholm ceremony to get first hand impressions from the guests. Here they are, along with tributes from political and business personalities and Jean Tirole's colleagues.

"Jean is my role model in economics. He's incredibly stubborn, but then so am I so it's a productive way of refining ideas. He's also a great friend, and we share a passion for table tennis."

Roland Benabou (Princeton), co-author since 2002

"I extend my warmest congratulations to Jean Tirole. This Nobel Prize highlights the quality of research in our country."

François Hollande, President of the French Republic

"With Jean-Jacques Laffont, Jean has made what I think is the primary research centre in Europe and a model for how economic research should be done."

Daniel L. McFadden (Berkeley), Nobel laureate 2000 & long-term colleague

"It is particularly wonderful this year to see the Prize laureate: he's from Toulouse, our great hero, I'm very pleased."

Torsten Persson, Nobel Prize in Economics Committee secretary & TSE Scientific Council chairman

"Jean has a great sense of humour and a ready smile. One of his favourite expressions is "plutôt mourir", which he has applied in jest to diverse activities such as ultimate Frisbee, certain branches of economics, and eating salad before the main course."

Drew Fudenberg (Harvard), long-term colleague

"Jean is a mentor, an example, an intellectual companion and a dear friend. I am overwhelmed with joy, emotion and pride at his winning the Nobel Prize."

Emmanuel Farhi (Harvard), former PhD student

"Jean is remarkable. Working with him is like playing tennis against a wall - some six feet away. You work hard on a problem and fax something to him one evening only to wake up the next morning to a ten page reply with comments, corrections, analyses and extensions, all logically presented and neatly written by hand."

Bengt Holmström (MIT), co-author since 1986

"Jean was my teacher at MIT in the 1980s. We have been friends and co-authors ever since. His work on banking supervision is among the best for understanding financial crisis. He combines inventiveness with great ability to craft models. It's very difficult to get a paper rejected from a top journal with Jean!"

Mathias Dewatripont (Vice-governor, Belgian National Bank), colleague since 1984

Partnership research before the Nobel

The Institut d'Économie Industrielle, a.k.a. "IDEI", is a bridge between academics and enterprises, both public and private. Business leaders, managers, policy-makers and researchers come together to discuss and analyse the challenges faced by various sectors and provide relevant insights on a wide range of issues.

A lab of ideas founded 25 years ago on the banks of the Garonne river, still focused today on its founding mission: to inform and support companies as they go through major economic transformations. A mission which has greatly benefited from the involvement of its scientific director Jean Tirole. Since 1991, he has carefully laid down the model and defined the guidelines for partnership-based research in economics.

To help understand the DNA of the Institute, Hervé Ossard, the current director, takes us back to the origins of the institute. In late 1980s and early 1990s, Jean-Jacques Laffont was returning from a gap year in the United States, where he had formerly accomplished his Ph.D. at Harvard University. "He was convinced that it was feasible to set up, in Toulouse, a department of economics based on matching ambitious excellence with suitable resources, similar to how it was done across the Atlantic then. It was he who persuaded the heads of EDF, amongst whom Marcel Boiteux, to commit to a high level partnership over several years. At the time, such a model of research collaboration was unheard of in France." This set-up appealed to Jean Tirole, who was teaching at the MIT at the time and consequently, he also chose Toulouse over Boston! All the ingredients were there; the adventure was about to begin...

EDF, a historic partner and exemplary partnership

"It was a very lively partnership" remembers Thomas-Olivier Léautier, TSE / IDEI researcher. "Jean really got involved, he frequently met the heads of EDF in Paris. One of them even came to spend a year in Toulouse, in order to work on matters linked to the opening of the electricity market." At the time, the big question among politicians and academics was restructuring. Many people thought that the invisible hand of the markets would solve all the problems. "Jean Tirole was one of the first to point out the adverse effects and to suggest rules to address them. His work has greatly contributed to the understanding of electricity markets."

What use is economic theory in all this?

Since those early days, many other companies and organisations have partnered with the IDEI for long-term research: Orange, La Poste, SCOR, Banque de France... and these are partnerships that go beyond sponsorship.

As Hervé Ossard sees it, partnership-based research isn't just a question of substantial resources dedicated to research. There



Hervé Ossard
IDEI Director

The IDEI develops four distinct activities:

- > **Basic research:** researchers develop formal models to analyse, interpret and understand industrial structures and the behaviour of economic agents.
- > **Applied research:** researchers at IDEI have developed customized methodologies designed for decision-making assistance. The Institute shares its expertise.
- > **Conferences and seminars:** the IDEI offers an international forum for debates between theorists and practitioners on economic problems.
- > **Training:** IDEI organizes training sessions for company managers in the disciplines required to master the workings of the economy and of finance.



www.idei.fr



> Watch video tributes on our Youtube channel: www.tse-fr.eu/fr/media/videos
> For extended tributes to and anecdotes about Jean Tirole by his long-time friends and co-authors, check out the latest edition of the TSE student magazine, the TSEconomist www.tseconomist.com/latest-issue.html

...

are instead in-depth discussions about the content of the research. "First, the companies come up with major ideas that even the most brilliant researchers say they wouldn't have identified alone. Moreover, they sometimes have economists within their teams, allowing us to work together and hence understand each other". Having said that, there's no focus on finding arguments for lobbying: "That's not where our expertise lies. What we do best is answering the question: 'what does economic theory say about this topic?' Then we undertake research in order to provide answers that complement what is already known. Through research, we try to estimate what is likely to happen and accordingly anticipate the consequences.



So during these last 25 years, our role has been to accompany major changes in companies, restructuring processes, mergers etc." And the IDEI plays another less-known but very important role; training senior management and disseminating economic culture within business but also within high-level civil service, particularly among regulatory authorities, whose decisions can have major consequences.

There's a 'before' and an 'after' the Nobel!

Today, with the office flooded with requests for appointments and the telephone ringing incessantly, Hervé Ossard stays calm: "We'll sort things out". As he knows perfectly well, managing 10 partnerships is quite different to managing 100. Of course, the Nobel reflects on the entire community « The Institute's image has changed. We no longer have to convince anyone of the quality of our work. More and more companies are seeking us out! But some things don't change" he adds. We are loyal to our partners; we're not going to change our agreements, it's thanks to them that we exist. Our scientific standard has not changed any more than our way of working... but until today, we were practically the only ones to know that."

Today, everyone also knows that the scientific director accompanying the IDEI since its inception is none other than Jean Tirole! An actively involved director who pays close attention to the general aims of every contract, even those on which he isn't working himself: "He is a very thorough, very demanding but also a very understanding director." And Jean Tirole, the researcher? "He's very active, on the issue of banking regulation for example, which has been of key concern since the subprime crisis. If anyone thinks being a scientific director boils down to just holding a title, they're wrong: Jean plays an invaluable, reassuring role for us. I am delighted that he shares the clarity of his analysis with the IDEI. It is a strength for our group and as director, I feel very lucky to have Jean."

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"Nowadays, people really listen to Jean... and they listen to us too!"

On 6 November 2014, Thomas-Olivier Léautier was sitting in the hemicycle at the French Assemblée Nationale (parliament) to speak before the Commission of Inquiry on electricity prices. Three former EDF chairmen, Marcel Boiteux, François Roussely and Henri Proglio had spoken the day before... A mere coincidence? Certainly not. Rather a consequence of the new visibility enjoyed by TSE researchers in general and particularly by one who had as PhD advisor at MIT a certain... Jean Tirole!



Thomas-Olivier Léautier
TSE / UT1 researcher

"It's extremely rare, as far as I know, that a University professor should speak before a Commission of Inquiry. It's a sign! The scientific excellence of Jean shines on the entire scientific community at TSE. Today, people are keen to hear our views. It is a new collective responsibility for us to shoulder, because we are more often invited to express ourselves. This new perception of the school by economic and political leaders also steps up the pace for the TSE students: companies know more about us, they are far more willing to open their doors to our students. That gives them exceptional new opportunities." ■

The "theory and practice" to-and-fro: a distinguishing feature of the Toulouse approach

Like others before him, Patrick Rey came to Toulouse for a year... and never left! In the 1990s, Jean-Jacques Laffont and Jean Tirole invited him to come and work on regulation and competition in the field of telecommunications. He stayed on to become director of the IDEI from 2007 to 2011, senior researcher at TSE and co-author of Jean Tirole on several publications. Here Patrick Rey, freshly back from Stockholm, still moved by the recognition of the work on market power and regulation he had been so involved in, tells us more about it.



Patrick Rey
TSE / UT1 researcher

is the way the researchers go back and forth between theoretical analysis and reality. Once a practical issue has been identified, we take a step back from the economic reality so as to analyse it, then we go back to the company with a suitable conceptual framework and relevant empirical ways of looking at it.

Thanks to our partners, we have thus been able to identify interesting research topics on which we have been pioneers! Today, for example, we are looking at business cooperation in high tech industries. How to choose the best business combinations to facilitate the adoption of patents without taking the risk of encouraging collusion or setting off a price war? The mechanism that we recommend can be transposed to the competition between airlines, for example, or the management of copyright... Our conclusions were used by the European Commission for license agreements. So you seen we really do always come back to reality!" ■

"It's a very active research topic which is still very much relevant today. You only need to open a newspaper to see issues around these questions, with Google, Microsoft or Amazon! It's also one of the first subjects the IDEI worked on. One of the defining traits of the Toulouse approach

Nobel creations: an alternative take on Tirole's work

Who would have thought that Jean Tirole's research into the regulation of market power could be portrayed via a haute couture dress, a modern sculpture or a musical melody? This is exactly what has been achieved via the fascinating "Nobel creations" exhibition at the Stockholm museum dedicated to Alfred Nobel and his legacy.

For each of this year's six different Nobel prizes, students from Swedish design and music colleges have created artistic interpretations of the discoveries and achievements of the laureates. The result is something rather special "providing new gateways to understanding and opening the way to another creative universe", as explains Olov Amelin, Nobel Museum Director. TSE Mag is proud to present the works of art inspired by Jean Tirole's work.

Object interpretation

Benjamin Curtis, Isa Andersson

"The organic-like form represents uncontrolled growth, while the grid represents Jean Tirole's research, his framework, which regulates and orders the markets' growth."



Musical interpretation

Anna Berglund

"Most inspiration for my composition has come from regulation, balance, and Jean Tirole's thoughts on how companies within the telecom industry give and take from one another in a way that benefits both the market and society. The different melodies of individual instruments are regulated accordingly, and ultimately arrive at the same phrase in balanced parts."



Fashion interpretation

Angelica Eichler, Linchao Zhang

"Drawing inspiration from Jean Tirole's extensive body of work, we have discussed the complex problems that arise when you attempt to regulate a dynamic environment. This inspired us to portray what is an inexorable duality within economics, an "on the one hand, on the other hand" that must simultaneously protect the interests of both society and the individual."



www.nobelmuseum.se

Research and Protection

AXA's primary mission is to protect both its clients and the wider community against risks. The Group believes that today's research leads to tomorrow's improved protection, which is why they founded the AXA Fund for Research in 2007 and signed a partnership with TSE. Its aim: to understand and anticipate risks but also to adapt to regulatory changes and technological revolutions. Denis Duverne, Deputy CEO of AXA gave us his analysis of the challenges facing the insurance industry.



Denis Duverne

Administrator, Deputy CEO, AXA in charge of Finance, Strategy and Operations



AXA is one of the world's top insurance and asset-management groups:

- > 102 million clients, individuals and companies
- > Present in 56 countries
- > 157 000 staff members

The group offering products and services in three major areas: damage insurance, life insurance and asset management.

As 2015 begins, what major challenges is the AXA Group facing?

The first challenge is the digital revolution which is changing the industry on every level. All of our contact with our clients is changing: the way we communicate, the way clients get information about and purchase the products...

There's also the Big Data revolution. Nowadays, we have access to vast amounts of information: that changes risk analysis and the information can also help clients change their behaviours so as to reduce their exposure to risks.

The second challenge is the very low level of interest rates because of the efforts made by central banks in order to provide liquidity after the 2008 crisis. People who invest their savings in life insurance and companies that entrust us with the management of some of their assets or their pension funds count on us to invest that money and make it work for them with a certain return.

The 3rd big challenge is regulatory. There has been a major change in the European rules on insurance company capital, called Solvability II. What's more, AXA is also a 'systemic insurance company' which means we are subject to even tighter rules. We also need to adapt to the recent strengthening of consumer protection regulations. Those are the three challenges facing us.

How do phenomena like new technologies, climate change, medical progress affect the insurance industry?

For the climate, change is gradual so although it's true that the world today is

faced with increasingly frequent, increasingly major natural catastrophes, we are able to adapt and anticipate.

In medicine, the changes are positive because they have led to longer life expectancy and treatment for previously untreatable illnesses.

At the same time, the cost of certain treatments that we cover is changing fast and it is quite possible that we will see a more radical change in life expectancy in a future which is difficult to predict.

Insurance uses the law of averages. With a highly diversified portfolio, there can be a balance of risks between life expectancy and mortality. A last important point: nowadays, there are lots of new instruments available, connected things which allow each of our clients to become their own 'risk manager'. If you have a connected bracelet telling you you haven't walked enough today or a smartphone in your car measuring your driving and telling you when you are not being careful enough, your behaviour is going to change for the better! It's the chance for us to make our clients realise that their best interests and those of their insurance company coincide.

How do you go about adapting to these changes?

What a vast question! When it's a question of the climate or new risks like terrorism, we adapt through modelling and through a certain discernment in the sale of policies. To grasp the opportunities offered by connected things, we often work with start-ups in order to progress.

Do you work with futurists?

We have a Data Innovation Lab staffed with scientists who handle large volumes of data; within that lab we have expertise in future forecasting. This is new expertise. We have an AXA Lab in San Francisco which is an observation window onto Silicon Valley, where things change fast. We are in contact with scientists whose

research we fund through the AXA Fund for Research. We also have risk management teams who adapt our models to the various data as and when it appears.

Is that how the partnership with TSE came about?

We were among the first companies to support the TSE Foundation. We work closely with Christian Gollier on all topics related to insurance and more recently, we've been working on the problem of systemic risk in insurance. It would appear that the theoretical foundations of the new regulations currently being implemented are not sound. TSE's role is to produce work which can improve risk analysis.

I would like to add that we are very proud to support the institution that nourished a Nobel Prizewinner!

The Prize was of course awarded to Jean Tirole, but it reflects on the students, teachers and establishments working with TSE. The benefits for the school will be huge.

What led AXA to create the AXA Fund for Research in 2007?

Firstly, we wanted to bring the world of business closer to the world of research, because as we see it, research cannot be financed by state funding alone. Then of course, we aimed to expand knowledge in the fields linked to our industry, so linked to risk. Knowledge reduces uncertainty and thereby makes certain risks 'insurable'. And finally, we wanted to contribute to the spread of knowledge to decision-makers and to the public. We focused our efforts by excluding the USA where private sector research funding is robust. So AXA pledged particular support to pioneering work in the fields of greatest interest to researchers and insurers.

What main themes did you focus on?

We chose three themes linked to our industry: risks concerning human health, environmental risks and socio-economic risks: the behaviour of markets and the

behaviour of economic stakeholders on the markets. The fund can finance research contracts like PhDs and post-doctoral work. It also attributes grants to researchers. It funds thematic chairs and perpetual chairs and makes capital injections into research institutions. Lastly, the fund supports research projects and makes financial contributions to the promotion of researchers' work.

The funding is *pro bono*, i.e. no direct return is expected, a fact which guarantees the researchers' independence.

So far, we have funded 450 projects between 2008 and 2014, giving over 100 million euros. We have pledged another 100 million euros for the coming 6 years. Today, AXA invests more than any other France-based private company in *pro bono* financing of university research. ■

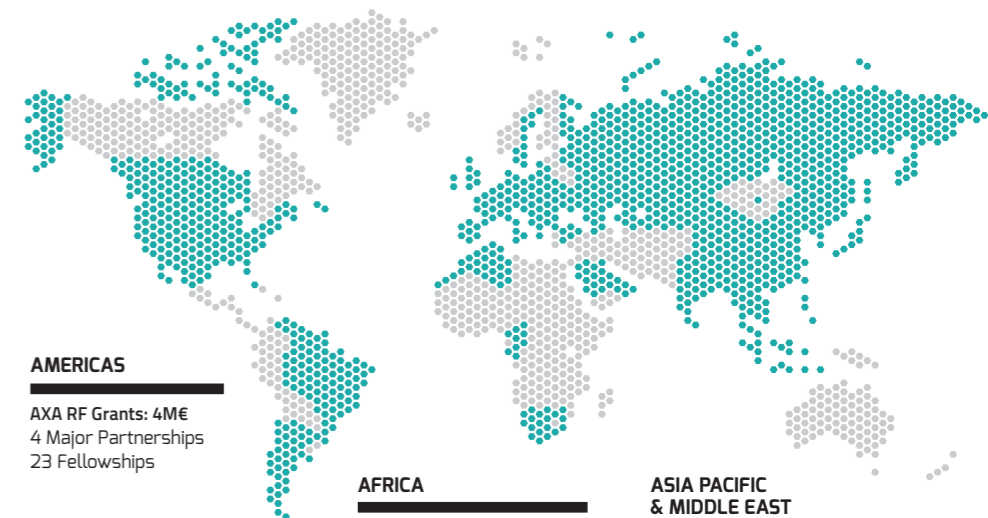
THE AXA FUND SUPPORTS RESEARCH THROUGHOUT THE WORLD (SEPTEMBER 2014)

AXA WORLD

AXA RF has funded 442 Grants
82 Major Partnerships
360 Junior Research Fellowships

EUROPE

AXA RF Grants: 90M€
68 Major Partnerships
317 Fellowships



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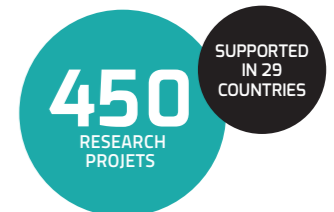
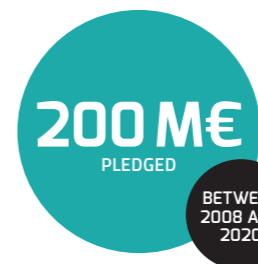
AXA RF Grants: 4M€
4 Major Partnerships
23 Fellowships

AFRICA

AXA RF Grants: 0.06M€
1 Fellowship (South Africa)

ASIA PACIFIC & MIDDLE EAST

AXA RF Grants: 10M€
10 Major Partnerships
19 Fellowships



French economists stand out from the crowd



Fabien Fieschi

Fabien Fieschi is a graduate of l'Institut d'Etudes Politiques in Paris. He has been Advisor to the French Ministry of Foreign Affairs, First Secretary in charge of Human Rights at the United Nations Organisation in New York and Advisor to French Prime Minister François Fillon's cabinet. From 2001 to 2006, he was First Secretary at the French Embassy in Tokyo. Since 13th August 2012, he has been French Consul General to Boston.



www.consulfrance-boston.org

It's undeniable: economists are very popular in the United States. But what struck Fabien Fieschi when he arrived in Boston was just how well-known the Toulouse School of Economics founded by Jean-Jacques Laffont was, in a region housing prestigious universities such as Harvard and the Massachusetts Institute of Technology.

The French Consul General, who has held the position since August 2012, tells us about the reputation and influence of TSE and the strength of its position in the international competition for excellence in teaching and in knowledge.

What is the Consulate's mission in the field of economics, innovation and scientific research?

The Consulate General of France in Boston is our oldest establishment in the United States. It opened in 1779, in the midst of the War of Independence, though if we are still here today; it is not to bear witness to that history, but to play an important role in high-level Franco-American cooperation. Boston has built on a long academic tradition going back to the foundation of Harvard, to become one of the main centres of knowledge production in the world. Today, the area is home to over 100 universities and colleges, some of which are amongst the most prestigious, like Harvard and the Massachusetts Institute of Technology (MIT) totalling over 300,000 students. In this environment, the Consulate has several objectives, such as organising and informing the community of French speaking students, teachers and researchers. To this

end, we organise networking events, such as our 'Cafés des Sciences' or 'Cafés des Entrepreneurs' and we hold information days on grants and job opportunities in research both in the region and in France. The recent creation of the worldwide 'France Alumni' network will further improve our reach.

The Consulate is also active in promoting academic cooperation: we can assist institutions with contacts, helping them to identify potential establishments for cooperation, as well as drawing up more complex agreements, such as the creation of an international joint research unit on the physics of materials. Finally, since Boston is a major hub of innovation, particularly in biotechnologies, "big data", or green technologies, the Consulate has set up various exchange programmes in these fields.

In the United States, economists are very popular, why do you think that is?

Knowledge and understanding of economics is quite different in the United States, particularly when it concerns the understanding of companies' activities. It's hard to say whether that is due to education or rather to Americans' daily

47 companies benefited from the NETVA (New Technology Venture Accelerator) programme between 2010 and 2014. NETVA is an initiative from the Office for Science and Technology at the French Embassy in the United States. Its goal is to support young innovative French companies as they reach for the American market. The winners have an intensive immersion week in Boston, in the Silicon Valley (San Francisco) or in Greater Washington (Washington DC). In parallel, the Young Entrepreneur initiative (YEI) programme has been set up to support American start-ups in France.



www.netvafrance.com and www.yeifrance.com



reality. People in the U.S are more exposed to the economic situation: be it employment, social protection which is often closely linked, or the amount of their capital funded pension which depends on the performance of many economic indicators, particularly stock markets, the American employees are encouraged to follow and understand what is happening in the economic arena and on the markets if they want to be able to anticipate and avoid unpleasant surprises which can have a major impact on their standard of living, their health or their children's education. Economists are therefore listened to; they are not considered as magicians or oracles, but neither are they generally accused of having a particular political agenda. French economists have an original point of view in this economic landscape: they have often been trained on both continents and have been exposed to very different economic and social systems, consequently, they can draw attention to problems which may have gone unnoticed on one side of the Atlantic, and offer alternative solutions.

The issues that come to mind are the debates on inequalities and taxation, the organisation and efficiency of the markets and the efficiency of development policies.

What changes have you noticed in people's view of French economists in general and of TSE in particular, since Jean Tirole was awarded the Nobel Prize in Economics?

It is mainly the general public's perception that will be modified by the fact that Jean Tirole was awarded the Nobel Prize in Economics. When I arrived in Boston, I was struck by how widely known the Toulouse School of Economics was among economists working for the most prestigious American institutions. I would go so far as to say that it was a revelation to me. Not only is Toulouse School of Economics 'on the map', but many of these economists have already visited to attend conferences or as guest professors. The aura around the Nobel should mean the end of TSE's status as 'best kept secret' and interest wider circles, particularly, I hope, among young researchers and

students on American campuses. More broadly, I hope that this Nobel Prize will encourage higher education establishments to follow the example set by TSE and be both innovative and ambitious: TSE is not the only possible template but it shows that in France, we would be wrong to give up the international competition for scientific excellence. ■

TNIT

On the 3 and 4 October 2014, Boston was host to the Toulouse Network for Information Technology (TNIT). The goal of this thematic network, funded by Microsoft and managed by IDEI is to promote research in economic sciences in the software industry, particularly their impact on internet and intellectual properties.

Target: the top of the league table!

The Bank of France honours researchers who have developed key concepts for the understanding of monetary and financial economics. The BdF (Banque de France: Bank of France) has been a partner of the Jacques Laffont-TSE Foundation since its creation in 2007, via a three-year convention with the Institut d'Economie Industrielle (Institute of Industrial Economics). This bicentennial institution, which is also France's central bank, plays a major role in supporting research and teaching in Economics. Anne Le Lorier, First Deputy Governor, tells us more.



What were the reasons behind this partnership between the BdF and TSE?

The desire to strengthen economic research in France in order to share our expertise internationally, expertise which has now been acknowledged at the highest level by Jean Tirole's Nobel Prize. We are very proud! Our aim is to be a centre of excellence in a league table still today dominated by the big American universities. We stand alongside TSE to foster high level research, carried out by expert teams made up of researchers from France but also from the very best universities abroad. We must do all that we can to attract the best economists and to face the double challenge of keeping our most brilliant people while attracting foreign talent.

What are the mutual benefits drawn from the Bank of France-TSE partnership?

For TSE, I suppose that the advantage is having access to the world of central banking, its challenges and issues. For us, this partnership has led to tangible

results. The first is the scientific supervision of research projects set up by our 'Bank of France Monetary and Financial Studies Department' with the TSE team, notably Thomas Chaney, Patrick Fève, Christian Hellwig, Augustin Landier, Franck Portier and Jean Tirole. Three of whom actually left the United States to join TSE at the beginning of our partnership. Meetings take place over 12 days in the year, through two or three workshops.

The partnership also means that we organise research seminars at the forefront of monetary macroeconomics through our Studies and International Relations Department, with the participation of Franck Portier. There are also around ten Financial Stability workshops, organised in coordination with Augustin Landier. Then of course there are one or two scientific conferences per year, regular visits from members of TSE for scientific coaching on research carried out at the Bank of France and the writing of articles to nourish our reflection or our publications ("Revue de la Stabilité Financière").

The Bank of France-TSE partnership has just been renewed for 3 years (2015-2018). What issues should the economists concentrate on?

We have identified a series of priority themes for the coming years. This partnership will focus on four of them: the study of the size and structure of financial intermediation

in Europe and crisis prevention (monetary economics and aggregate liquidity, payment systems, prudential regulation); market transparency and the process of price formation in a low interest rate environment, industrial economics of markets and of the post-market; contagion mechanisms in a heterogeneous system; and finally, the decoupling of economic cycles, the effects of low inflation.

For the second time, the BdF-TSE Senior Prize has been awarded to an economist whose research has centred on financial frictions. Is that a deliberate sign sent to the economics community?

In 2012 we decided to create a series of prizes to honour academic researchers who have developed key concepts for our understanding of monetary and financial economics which foster improvements in economic policy.

The senior prize was awarded to Professor Nobuhiro Kiyotaki for his work on nominal rigidities, the foundations of money and credit constraints. His work was amazingly cutting edge. More than ten years before the Great Recession, his work showed the importance of financial constraints in the spread of macroeconomic crises. It was quite logical that central banks should turn to his work when it became urgent to develop analysis frameworks for our non-conventional policies. The works of the junior prize-winners illustrate the same concern: the price of financial assets and liquidity risk; adjustments in monetary unions; term premiums and choice of mortgage loans by homeowners; macro-prudential policy and debts. Beyond that, central banks must face up to several long term challenges. Conceptual effort must be put into defining a possible "new normal", into the changes in inflation and renewed reflection on the limits to what Central Banks' actions can achieve and the necessary articulation between monetary, budgetary and prudential policies. ■

The Winners 2014 - Prize for Monetary and Financial Economics



Nobuhiro Kiyotaki and Christian Noyer, Governor of The Bank of France

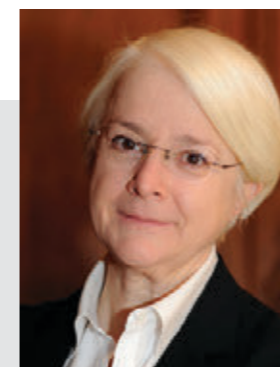


Ivan Werning, Jean Tirole and Ralph Kojien

Nobuhiro Kiyotaki Senior Prize 2014

PhD Harvard
Professor of Economics
University of Princeton

"I am extremely honored to receive the Banque de France – Toulouse School of Economics Senior Prize in Monetary Economics and Finance. Many parts of the world are still waiting to recover from the recent financial crisis, including Europe and Japan. I hope to continue making contributions to our better understanding of what causes financial crises, why long stagnation may follow and how we can avoid such a trap in the future."



Anne le Lorier

First Deputy-Governor of The Bank of France, appointed by the Council of Ministers of 4th January 2012. Anne Le Lorier had previously spent most of her career at the Ministry of Economy and Finance where she was Civil Administrator for the Treasury. She has worked on both national and international questions.



www.banque-france.fr/la-banque-de-france/organisation/organigramme/anne-le-lorier.html

Iván Werning Junior Prize World 2014

PhD Harvard
Professor of Economics
University of Princeton

"It was a great pleasure to receive the BDF-TSE prize and to participate in this event. It is interesting to see the collaboration and commitment of these two institutions towards advancing scientific economic research with applications to policy. This is an area I am very interested in, both from a macroeconomic and public finance perspective. I had the pleasure to visit Toulouse before and I now look forward to spending some time again at TSE and getting to know BdF better."

Ralph S.J. Kojien Junior Prize Europe 2014

PhD University of Tilburg
Professor of Finance
The London Business School

"I am very excited and grateful to receive the BDF - TSE prize this year. I'm also looking forward to the conference in January and the visits to the Banque de France and TSE next year. We hope that our research is helpful to make the risks in insurance markets more transparent, and to understand the implications of regulatory proposals that have been circulated recently. Our recent work on asset pricing in which study the impact of institutions on asset markets is hopefully useful to answer many questions involving large changes in institutional holdings, for instance resulting from changes in regulation of insurance companies and banks or from large-scale asset purchases by central banks. Our framework can also be used by investors to improve estimates of expected returns and by firms to understand the impact of corporate policies on asset prices."

Application procedure and deadlines:



PHILIPPE ALBY

Independent learning

Project-based learning is widely developed in Engineering Schools, where from the very first weeks of teaching, students work in groups on projects: building a solar-powered vehicle or a rocket...

In French universities, this active learning-process started to come into use four or five years ago. Even if there can be no tangible, physical results, the principle is the same: allowing the students to work independently. Philippe Alby, researcher at TSE, lecturer and head of pedagogical innovation, reviews the first experiments carried out at the school.

What is project-based learning exactly, and how was it set up at TSE?

This 'active' learning is based on the idea that students will find it much easier to grasp and master knowledge and concepts if they go and find them themselves. We set ourselves a first goal: let them get to know each other through group work. Then, we decided on a theme – this year, it was the labour market. The students had to come up with the topic they wanted to work on, which was a new exercise for them. Next, we organised 1.5 hour sessions each week from September to November, during

which the tutors guided each group and followed the progress of the projects. The goal was to guide rather than to teach. We also required some work on data – we considered it important that the students see the link between theory and practice.

What does it teach the students? What are the advantages of this type of methodology?

As it's one of the first things the students do at the school, it allows them to get to know each other. They then learn to work in a group, without having decided who to work with, which is another constraint to be dealt with. They learn to do research and to use academic literature or empirical data.

Of course they learn to define their topic themselves, which is, I think, the most difficult part for them. Finally, they develop their writing skills drafting a concise project document, and their presentation skills by giving an oral presentation, which is another novel exercise for them.

Through this type of pedagogy, the students learn to evaluate what is or isn't possible to get done, because from the beginning, they had no way of knowing whether such a topic could be dealt with in the time available. They also learn to make the link between 'real' economics and the theory they have been taught since their arrival at TSE and lastly, they learn to use their knowledge of microeconomics, macroeconomics and statistics.

Since their early childhood, these students have been formatted: they expect the teacher to pass on knowledge for them to learn and reproduce during an exam. We had to deconstruct that.



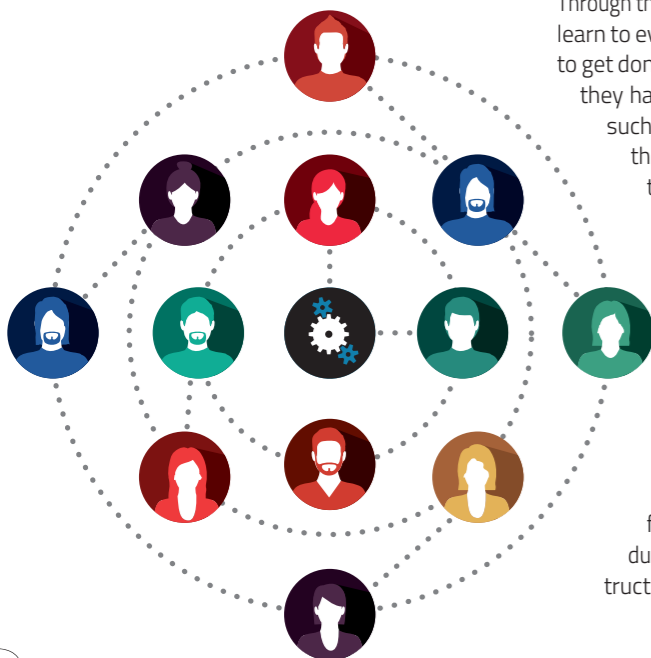
Philippe Alby
Researcher at TSE / UT1

We had to say: right, it's your turn! Several of them were rather disorientated, but I think they really grew in terms of independence and curiosity. When you get a curious, autonomous student, you're not far from having an excellent one!

How did the students react to this type of teaching technique?

The first sessions were rather laborious. Some of them were very anxious at not knowing what to do, nor how to do it... They were just left, almost entirely alone, with a tutor whose role was simply to guide them; it was completely different to what they were used to. On the contrary, others were very enthusiastic, keen to get involved in vast projects or work on topics that would usually have required one or even two PhD students to be resolved! But they got to grips with their subject and I think overall, they worked well. Some even said they would have liked to have more time to go into greater depth! I found that what they produced was of very good quality.

They also learned what we call 'soft skills': how to work in a group; how to measure whether something is possible; how to formulate a question; what to look for; how to identify the information you need... without realising it, they made tremendous progress. ■



Discover project-based learning in video:
youtube.com/tsechannel

217
students

took part in the experiment.

58
project groups

made up of 3 or 4 students of different nationalities from the various specialised fields (Economics, Economics and Mathematics, Economics and Law) carried out one project each.

Feedbacks

"We had to use our theoretical knowledge to solve 'real' problems and we almost felt like real, professional economists."

Sophia, 3rd year student

"I really appreciated the fact that all the fields were mixed together so that I was working with both French and foreign students."

Charles, 3rd year student

"It was interesting to be handling raw data to draw out understandable information."

Karim, 3rd year student

Thinking outside the box

On 27 November, Sophie Vermeille gave a "Business Talk" at TSE on "The Legal System and the Development of Alternatives to Bank Credit; Or How French Bankruptcy Law has Failed to Adapt to the Evolution of the Economy and Finance".

For Sophie Vermeille, research centres such as TSE play a leading role in promoting these changes in a country's regulatory framework. Through the encouragement of interdisciplinary research in law and economics, they create synergies of high interest to public authorities.

Since the beginning of the crisis in 2007, a large number of analysts have predicted a reduction of the banks contribution to the European economy. This evolution invites us to re-examine French law and its impact on the development of alternative methods to traditional bank financing. In France, and in Europe, investors currently perceive a climate of legal uncertainty, as a consequence, companies have difficulties accessing to credit, and when they do, it is at a high cost. This situation has effects on the country's innovation and business development.

Sophie Vermeille began looking into this issue while confronted with the Chapter 11 of United States bankruptcy law in one

of her cases as a lawyer. The striking differences between a more flexible American regulation and the rigid, outdated French system caught her attention. Ever since, Sophie Vermeille has studied the reasons behind the inflexibility of French bankruptcy law, and how it could be improved. In her view, French law is too favorable to shareholders. Based on a traditional model of firms, now obsolete, it focuses excessively on preserving jobs and confuses preserving a business' assets with preserving its legal entity. Sophie Vermeille and her think-tank advocate for a reform of French bankruptcy law both from a law and economics perspective. In cases of insolvency, the goal should be first to create and preserve as much value as possible, and only after reallocate such value.

For Sophie Vermeille, using a joint law and economics perspective is the best way to comprehend and tackle this issue. Although often branded as a "free-market" tool, it has great potential if used the right way. ■



Sophie Vermeille

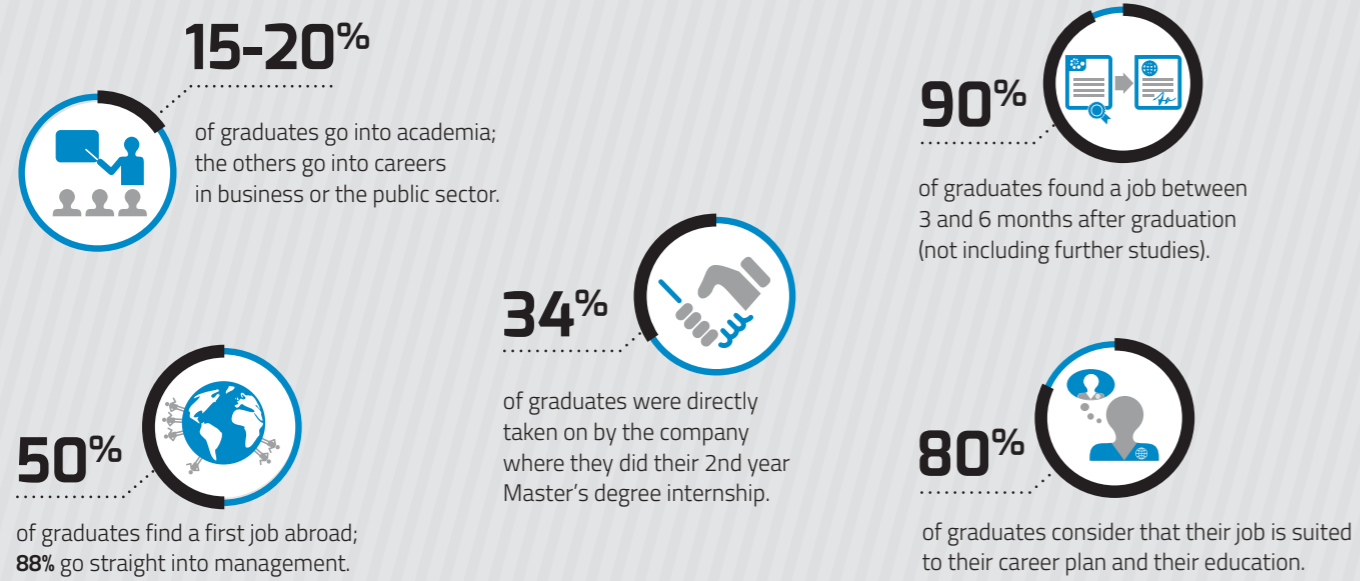
Sophie Vermeille is a researcher at the Paris II University. She holds a Master's degree from Paris II and from London King's College, and is preparing a PhD in Law and Economics from Paris II. Her research interests lie principally in corporate finance, personal and corporate insolvency law, corporate law, banking law and law of security interest.

She is also a French qualified lawyer at the Paris office of DLA Piper. She founded and manages the "Rules for Growth" institute, a French think tank where faculty members from various universities work together with practitioners mainly in the field of corporate finance.

Training Tomorrow's Experts

Graduate recruitment figures

The success rate for TSE graduates is high. That is the conclusion of a 30 month study carried out by the French Observatory of Training and Recruitment.



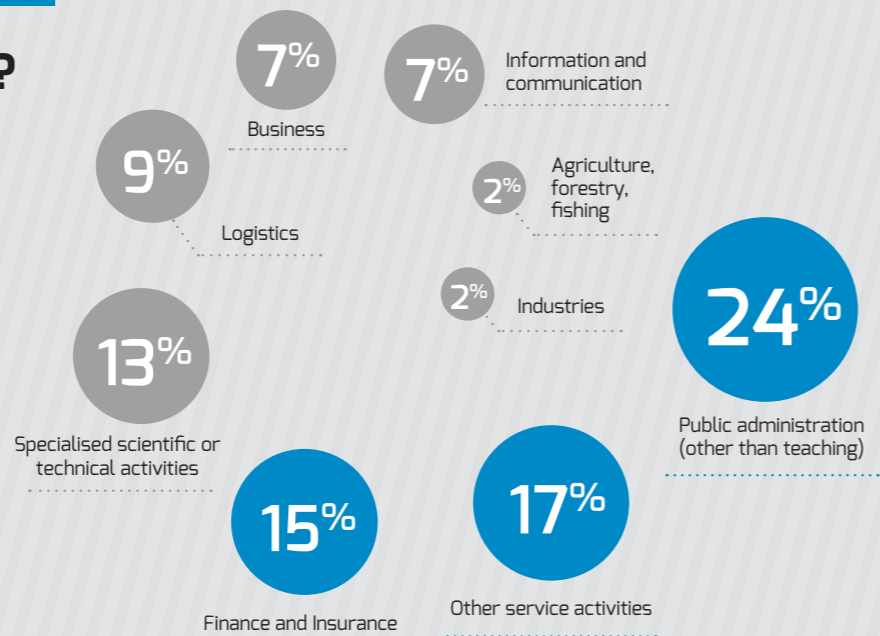
Where are they now?

Some examples of careers our graduates go into:

(Source OFIP)

As a TSE grad, you can be a: research manager, consultant, analyst, statistician, head of risk management, market economist, lecturer-researcher,...

Learn how TSE prepares its students for successful careers, via our quick presentation video: [youtube.com/tsechannel](https://www.youtube.com/tsechannel)



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