

# TSE AND POSTAL ECONOMICS

25 YEARS OF PARTNERSHIP

Views from La Poste and TSE  
on 25 years of research and the  
challenges for the future



  
LE GROUPE LA POSTE

  
ixi  
INSTITUT  
D'ÉCONOMIE  
INDUSTRIELLE

Toulouse  
School  
of Economics

25 YEARS  
OF PARTNERSHIP

## A constant partnership

Groupe La Poste is a long-standing partner of TSE and the IDEI, founded in 1990 by Jean-Jacques Laffont. Starting in 1993, the company entered into a research partnership that has since been continuously renewed.

The idea for this collaboration came quite naturally to the leaders at the time. The 1990s marked a turning point for La Poste and the postal sector, both at the national and European levels.

In France, the 1990 law on the organization of the public services provided by La Poste and France Télécom modified the status of these operators. The aim of this reform was to give La Poste the management autonomy it needed to drive its development strategy by providing it with its own legal personality. The law also confirmed the public service missions entrusted to La Poste (universal postal service, transport and delivery of the press, contribution to regional planning and banking accessibility) and the scope of its monopoly.

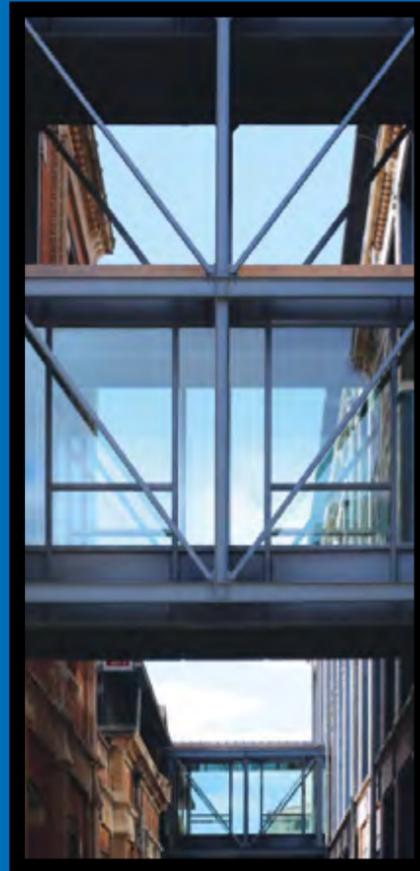
This legal monopoly was called into question a few years later, with the publication in June 1992 of the Green Paper on the development of the single market for postal services by the European Commission. The discussions initiated at European level at that time led to the adoption of the first postal directive of 1997 which began the process of gradually opening up the sector to competition. The five years between the publication of the Green Paper and the adoption of the first directive reflect the difficulty of finding a compromise. The European Council, Commission and Parliament struggled to reach an agreement, torn between, on one hand, the goal of a high-quality universal service at an affordable price conditional on the economic viability of the operator, and on the other hand, the establishment of a process of gradual liberalization.

In this context, the partnership seemed to be an opportunity to contribute to an informed public debate, and to enlarge the scope of academic knowledge which was quite limited at the time. For TSE, the choice of a partnership with La Poste opened up a new field of applied research and contributed to its growth as a world-class research center.

For La Poste, the research carried out under the aegis of the partnership helped it to achieve a reform of the sector that satisfied all parties. The decision to work with TSE seemed an obvious choice given its skills and expertise in various fields of economic science related to the specificities of the postal sector: network economics, regulation of markets and natural monopolies, contract and incentive theory, economics of competition, etc.

Since 1993, many themes have been addressed by this research partnership. This booklet is an opportunity to review some of the major projects that have guided not only the company's strategy, but also best practices in the regulation of the postal sector.

Several TSE researchers, leaders and former leaders of Groupe La Poste give us their perspectives on the objectives pursued through this partnership, providing concrete examples that illustrate the benefits of this partnership for both for the company, for research and for the "common good". They also discuss the challenges facing the company, researchers and society today.



# CONTENTS

The research team - TSE / LA POSTE ..... p.5

## Men of Letters

- Philippe Wahl, CEO of Groupe La Poste - "Postal revolutions and their consequences" ..... p.14
- Jean Tirole, President of Toulouse School of Economics - "TSE in partnership: The imperative and the opportunity"..... p.16

## The purpose of this partnership and the keys to its success

- Jean-Paul Bailly, "Research and regulation: The issues at stake"..... p.20
- Marc-André Feffer, André Grimaud, Bruno Rosellini, Bernard Roy, "Three perspectives" ..... p.22
- Bernard Roy, "A success on all fronts"..... p.24
- Frank Rodriguez, "A replicated partnership - Royal Mail" ..... p.27
- Hervé Ossard, "The characteristics of partnership research" ..... p.28
- Sébastien Pouget, "Partnership research at TSE"..... p.30

## 25 years of research: Views from La Poste and TSE

- Joëlle Toledano, "What's the utility of a postal economist?"..... p.33
- Denis Joram, "How economic research can improve regulation"..... p.36
- Catherine Cazals, "Understanding the postal sector with econometrics"..... p.38
- Claire Borsenberger, "From postal to digital economics"..... p.40

## Challenges ahead

- Jean-Paul Forceville, "The future of postal services in Europe" ..... p.44
- Helmuth Cremer, "Neither snow nor rain nor heat nor gloom of night, but maybe less than a gigabyte: The digital revolution and the future of regulation in the postal sector"..... p.46
- Nicolas Routier, "Balancing the rules of competition in the new ecosystem"..... p.49



CATHERINE CAZALS

Catherine has been a professor at TSE and UT1 Capitole since 2000. Her academic interests include econometrics (in particular frontier analysis), applied industrial economics and postal economics. She has published numerous articles in prestigious journals, often on topics related to the postal sector in France or in the United Kingdom.

*"The past 25 years of econometric analysis have only been possible thanks to La Poste's ongoing efforts to provide us with a huge wealth of data."*



HELMUTH CREMER

Helmuth has been a professor at TSE and UT1 Capitole since 1993. His academic interests are in public economics and industrial economics. He was formerly editor of *Berkeley Electronic Journal of Economic Analysis & Policy* (2010-2012), managing editor of *German Economic Review* (2006-2014) and associate editor of numerous other economic journals.

He was a senior member of the Institut Universitaire de France (2006-2016) and a member of the Economic Council of the Nation (2005-2009).

*"If the objective is to avoid excess concentration in e-commerce, to develop cross-border exchanges and to protect small retailers, this should be done via policies directly affecting the retail sector."*



JACQUES CRÉMER

A graduate of École Polytechnique and MIT, Jacques taught at the University of Pennsylvania and Virginia Tech before coming to Toulouse, where he was 'Directeur de Recherche' (research professor) at CNRS from 1991 to 2014. He was IDEI director from 2002 to 2007 and TSE scientific director from 2011 to 2014. He is a fellow of the Econometrics Society and the European Economic Association and was professor of economics at École Polytechnique from 1996 to 2003. Currently, his research focuses on organizational theory, industrial organization and, in particular, the economics of the internet and the software industry, as well as contract theory.

*"The partnerships with La Poste and Royal Mail have been one of the great successes of the IDEI and TSE. They have been strategic for our partners and have helped build what is undoubtedly the best research group on the postal sector in the world. The sector is in the midst of a transformation that poses intellectually interesting problems that have important implications for society. I am very proud to have contributed to this success."*

## Meet the teams



**PHILIPPE  
DE DONDER**

Since 2017, Philippe has been professor of economics at the Université du Québec in Montréal (UQAM) and an associate member of TSE. He previously worked at TSE, starting in 1998 as a senior lecturer at UT1, and later as a researcher then as a research director at CNRS. He has been visiting professor at the University of Rochester (2000), Yale (2007) and UQAM (2014). His research focuses on public economics, political economy and the economics of regulation. He has published about 50 articles in the best journals of these fields. He is associate editor of the *Journal of Public Economic Theory and Social Choice and Welfare*, and a member of the editorial board of the *Journal of Regulatory Economics*. For the IDEI, he has been mainly involved in partnerships with Gaz de France (from 2004 to 2006) and La Poste (from 2007 to 2015). He is currently continuing his collaboration with Royal Mail, which started in 1999.

*"I have had the pleasure of working closely with researchers from Royal Mail since 1999, and from La Poste between 2007 and 2015. These long-term collaborations make it possible to really deepen our knowledge of the postal sector, and to apply theoretical modeling to problems that are both intellectually interesting and of significant practical importance."*



**FRÉDÉRIQUE FÈVE**

Frédérique is a research engineer at TSE. Her research focuses on the econometrics of applied industrial economics and more particularly on the structure and study of networks (for example, postal and electricity distribution).

With a PhD in health economics, she also uses the statistical methodology of econometrics in her participation in several public health research programs.

*"Beyond the structural modeling of industrial networks, applied econometrics work remains a recognized form of empirical validation for the acceptance (or not!) of the hypotheses of economic theory."*



**JEAN-PIERRE  
FLORENS**

Jean-Pierre is professor of mathematics at UT1 Capitole. His work at TSE focuses on the statistical methodology of econometrics. He has published several books, numerous research articles and directed the research of a large number of doctoral students.

As a member of the IDEI, he has been responsible for partnerships with different postal operators and has participated in many applied econometric projects in the field of postal economics.

*"My participation in applied econometrics research has been a powerful stimulus for my theoretical work that has itself enriched the empirical studies done at the IDEI. This partnership is a perfect example of successful interaction between applied and basic research."*

## Meet the teams



**ANDRÉ GRIMAUD**

André has been an emeritus professor of economics at TSE and UT1 Capitole since 2017, where he was a professor since 1991.

He is member of the Laboratoire d'Economie des Ressources Naturelles (LERNA). He has published numerous scientific articles in macroeconomics, industrial economics, and urban economics. In 2009, he was appointed member of CESifo (Center for Economic Studies and the Institute for Economic Research) and member of France's energy council (CFE).

*"The partnership between La Poste and TSE has had an important empirical component. Beyond the professional perspective, I cherish the memory of a relationship based on deep mutual trust."*



**ERIC GAUTIER**

Eric is a professor of mathematics at TSE and UT1 Capitole since 2014. With a PhD in mathematics and economics, he has been a professor at ENSAE and a visiting professor at the University of Chicago. His research projects focus on econometrics, statistics and probabilities.

He received an ERC starting grant in economics in 2013 for a project on non-parametric and large-scale modeling of multiple sources of unobserved heterogeneity and endogeneity.

*"I started my collaboration with La Poste when I arrived in Toulouse in 2014. It is a real pleasure to participate in this partnership and to reflect with Groupe La Poste on how to model the business and postal processes."*



**JEAN-MARIE  
LOZACHMEUR**

Jean-Marie has been director of UMR TSE-R since 2016. He has also been CNRS research director since 2014 and is a member of CESifo. From 2013 until 2016, he was director of Gremaq. With a PhD in economics from the University of Liège (2003), he received the CESifo Distinguished Affiliate Award in Public Economics in 2004.

He has been editor of the *German Economic Review* since 2015 and Associate Editor of *Journal of Pension Economics and Finance* and the *International Journal of Health Economics and Management*. His research interests are in public economics, health economics and industrial economics.

## Meet the teams



HERVÉ OSSARD

Hervé has been a TSE member and the Director of the IDEI since 2011. He is an engineer (Agro Paris Tech, 1970) and holds a master's degree in genetics (University of Paris Jussieu, 1969) and in econometrics (UT1 Capitole, 1987).

He has held various scientific and managerial positions in France including the presidency of INRA Toulouse Midi-Pyrénées. Applied economist, specialist in agricultural and food price formation, he has published articles in various scientific journals, especially on the mechanisms of trade organization (auctions, contracts). He has also been a member of the Agri Sud-Ouest Innovation cluster since 2007.

*"Thanks to the partnership, TSE researchers have been able to do the best research by acquiring expertise and developing themes that had been neglected by economics."*



SÉBASTIEN POUGET

Sébastien is a professor of finance at UT1 Capitole and a member of TSE. He is director of TSE Partnerships. He has been a visiting professor at Princeton University and New York University - Shanghai Campus, and a professor at Georgia State University.

He studies financial markets using a multidisciplinary approach that combines insights from economics, psychology, and history. His research has been published in international journals such as the *Journal of Finance*, *Econometrica*, *Management Science* and the *Review of Economic Studies*. Sébastien is co-director of the research center on Sustainable Finance and Responsible Investment (FDIR).

*"The main benefit of partnership research is to produce world-class academic knowledge and insights that have the potential to influence both academics and practitioners, industry players as well as regulators, in the way they think about the issues of strategic interest."*



JEAN TIROLE

Jean is president of the Jean-Jacques Laffont-TSE Foundation and the Institute for Advanced Study in Toulouse (IAST), which he co-founded in 2011. He is also affiliated with MIT, where he holds a visiting position, and the Ecole des Hautes Etudes en Sciences Sociales.

His research covers industrial organization, regulation, organizational theory, game theory, finance, macroeconomics, and psychology. Jean has published more than 200 articles in international journals as well as 12 books, including a 2016 book for the general public entitled *Economics for the Common Good*. He has received numerous international awards, including the 2007 CNRS gold medal, and the 2014 Sveriges Riksbank prize in economic sciences in memory of Alfred Nobel.

*"Research in economics offers a dual opportunity: to confront challenging and intellectually exciting theoretical issues, and to contribute to public and private decision-making. Ultimately, its purpose is to 'make the world a better place'."*



LE GROUPE LA POSTE

## Meet the teams



PHILIPPE WAHL

Philippe has been President and CEO of Groupe La Poste since 2013. He was previously chairman of La Banque Postale's management board and deputy CEO of Groupe La Poste.

Advisor to the President at Compagnie Bancaire in 1991, he became a member of the board of directors in 1992, then deputy general manager in 1994. He began his career as an auditor and 'maître de requêtes' (counsel) at the State Council. In 1986, he became an advisor to the President of the French Securities and Exchange Commission (COB), and in 1989 joined the cabinet of Prime Minister Michel Rocard as technical advisor in charge of economic, financial and fiscal affairs.

In 1997, he was responsible for the specialized financial services of Paribas and member of the executive committee. In 1999, he was appointed CEO of Caisse Nationale des Caisses d'Épargne (CNCE). In this capacity, he was chairman of Sopassure, chairman of the Board of Ecureuil Assurances IARD and a member of the Supervisory Board of CDC Ixis and CNP. Appointed CEO of Havas in 2005, he became vice-chairman of Bolloré in 2006. In 2008, he became managing director of Royal Bank of Scotland (RBS) for France, Belgium and Luxembourg.

*"Our traditional role, the physical transport and delivery of mail, is disappearing. We must engage in a successful transformation that will be crucial for the future of La Poste. Undoubtedly, it will be the most complex transformation in more than five centuries."*



NICOLAS ROUTIER

Appointed executive vice-president of Groupe La Poste in charge of mail and parcel services in 2014, then head of institutional strategy, regulatory, legal, European and international affairs in 2015, Nicolas has spent his entire career at the heart of the Groupe La Poste. He joined the finance department of La Poste as head of strategic planning (1988-1991) then management control (1991-1994). In 1997, he joined La Poste's management committee and created the purchasing department, which he headed until 2001. At the same time, he was director of management control (1998-2001).

In 2004, he became advisor to the president of the Groupe La Poste and CEO of MEDIAPOST. At the same time, he was president of STP and NEOPRESS from 2007 to 2009. In 2009, Nicolas was appointed deputy general manager of Groupe La Poste, CEO of Mail and president of SOFIPOST.

*"It is by fully understanding the operating mechanisms and socio-economic consequences of the new platforms of the digital economy that governments will be able to take appropriate measures to ensure efficiency as well as fairness in competition."*



JEAN-PAUL  
FORCEVILLE

Since 2014, Jean-Paul has been Director of Regulation, Institutional and European Affairs at Groupe La Poste. He is also head of SOFREPOST, a subsidiary of La Poste dedicated to international consulting in the traditional postal trades.

Since 2011, he has been chairman of the board of directors of Mediapost Vietnam and of PostEurop, an association of 52 European postal operators in charge of universal service. In 1992, he was appointed managing director of Sofipost, the holding company of La Poste's subsidiaries.

In 1998, he became chief of staff to the President and CEO of Groupe La Poste. In 2001, Jean-Paul was appointed director of external relations and, in 2004, director of European and international affairs.

*"It is imperative to question the societal value of the universal postal service and the various SGEI entrusted to postal operators well before the advent of digital technology. In this respect, the coming years promise to be plentiful."*

## Meet the teams



JEAN-PAUL BAILLY

After earning a master's in science at MIT, Jean-Paul devoted his entire career to public service, starting at the Régie Autonome des Transports Parisiens (RATP) in 1970, where he became vice-chairman from 1990 to 1994, before being appointed President and CEO in 1994. In 2002, he was appointed chairman of the Board of Directors of La Poste, and was reappointed in 2005.

After transformation of the public operator into a public limited company, Jean-Paul was appointed chairman of the Board of La Poste in 2010. He left the Groupe La Poste in 2013. Since 2017, he is acting President of "thecamp", a new campus dedicated to emerging technologies, near Aix-en-Provence.

*"I want to express the great esteem I have for Jean Tirole, given his immense contribution to economic theory but also for his human qualities, his modesty. Jean has always been attentive to the problems of La Poste and I remember with pleasure the exchanges that we have had on such fascinating topics as the theory of two-sided markets."*



MARC-ANDRÉ  
FEFFER

From 2004 to 2015, Marc-André was deputy head of strategy and innovation, international development, regulation and law at Groupe La Poste, as well as vice-chairman of the supervisory board (since 2005) of Epiposte, later La Banque Postale, chairman of the board of Postimmo (2007-2015) and chairman of Xange Capital. Now retired, Marc-André is a member of the Commission des participations et transferts.

Before joining Groupe La Poste, Marc-André was successively 'maître de requêtes' (counsel) at the State Council, secretary-general of the Polling Commission (1979-1981), cabinet advisor of Gaston Thorn, president of the Commission of the European Communities (1981-1984), managing director of the World Computer Center (1984-1985), and head of the legal and technical information department (SJTI) in the Prime Minister's Office (1985-1988). He then joined Canal+ as secretary general (1988) and vice-chairman of the Management Board and General Counsel (2001-2003).

*"The Toulouse economists offered us a conceptual framework to prepare for the shock of liberalization. Their research has been invaluable to us. They accompanied us in the management of an activity in competition and the implementation of postal regulation and its tools."*



JOËLLE TOLEDANO

Joëlle is a university professor in economics. She pursued a dual career, academic and corporate, before becoming passionate about public policy and regulatory issues. She is associated with the 'Governance and Regulation' Chair of Paris-Dauphine University, member of the board of directors of the French National Frequencies Agency (ANFR) and two digital startups. In 1993, she joined La Poste, where she was, from 2001, the director of European and national regulation.

From 2005 to 2011, Joëlle was a member of the Collège de l'ARCEP. She was also president of the postal economics group of the Universal Postal Union and the first president of the Group of European postal regulators, created in 2010 by the European Commission.

*"This partnership has been a memorable one for me, where the pleasure of finding 'good' people went well beyond the scheduled discussions. I'm not just talking about the meals that any TSE visitor knows well, but about the stimulating and mutually respectful atmosphere that presided over our meetings and work. And all that with the attentive support, when necessary, of Jean Tirole and the much-missed Jean Jacques Laffont."*

## Meet the teams

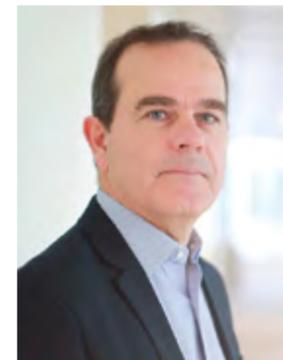


CLAIRE  
BORSENBERGER

With a PhD in economic science from the University of Social Sciences of Toulouse, Claire began her professional career in 2004 at the Ministry of Economy and Finance, in the public policy department of the current Direction du Trésor.

Since 2007, Claire has worked in the department of regulation and research of Groupe La Poste. Within this department, she is currently responsible for theory and modeling.

*"After joining the La Poste team of economists in 2007, thanks to the partnership I had the pleasure of reuniting with many of the people who accompanied me during my studies in Toulouse. In particular, Helmuth Cremer, Jean-Pierre Florens, Marie-Hélène Dufour, Valérie Nowaczyk, Jacques Crémer, Patrick Rey, Bruno Jullien, and many others. I take this opportunity to express all the respect and esteem I have for them."*



DENIS JORAM

Denis has been Director of Regulation and Research since 2014. With a PhD in economics from the University of Caen and a DESS in demography from Paris I - Panthéon Sorbonne University, Denis began his career in 1987 at the France Telecom research center (CNET) as a researcher and economist.

He joined SFR in 1996 and held various positions in the fields of regulation, international affairs and strategic planning at SFR and then Telecom Development. In 2003, he became director of costing and strategic planning at Cegetel SA.

He joined Groupe La Poste in 2006 as director of economic studies.

*"La Poste's willingness to rely on scientifically grounded positions, particularly on economic regulation issues, is essential in maintaining the balance of power with our stakeholders. The scientifically proven argument is always more powerful because it is both opposable and difficult to challenge by more opportunistic arguments."*





**BERNARD ROY**

A graduate of the Ecole Polytechnique, with a PhD in economics, Bernard joined La Poste in 1995 as an expert in regulatory economics, before taking on responsibility for the department of economic modeling and cost-allocation theory. In 2001, he joined the external relations department and was responsible for the regulatory economy department.

He was appointed director of European and national regulation of Groupe La Poste in 2005, director of strategy at La Banque Postale from 2010 to 2014, then local director of Réseau and La Banque Postale in the Yvelines département from 2014 to 2017. Bernard is now the founding president of Le Cap Economics, a consulting firm in strategy, economics, regulation and competition.

*"The partnership with TSE was of major strategic importance, not only for La Poste, but also for the European postal sector, and even for the US Postal Service."*

**BRUNO ROSELLINI**

Bruno has been deputy head of strategy and programs in La Poste's mail and parcel branch (BSCC) since 2015. Previously, he was director of international development at the European and international affairs department (2004-2011); director of HR strategy and social relations (2002-2004); director of development in the strategy department (1999-2002); director of international mail (1995-1999) and director of strategy in the mail department (1992-1995).

*"My meeting with Jean-Jacques Laffont was convivial and very rewarding. I was struck by his simplicity and extraordinary intelligence. To have aroused his interest and interested him in our problems remains a very powerful memory."*



Men of  
letters



Philippe WAHL  
President and CEO, Groupe La Poste

## Postal revolutions and their consequences

Over the past 25 years, the postal sector has been shaken by two major revolutions. First, there has been the complete opening of the European postal market to competition. This process, initiated at the same time as our partnership with TSE in the early 1990s, was completed on January 1, 2011, when the remaining reserved area disappeared.

Second, and probably the most important, was the digital revolution that hit the postal operators of the entire world with the dematerialization of correspondence between individuals, between professionals, between individuals and professionals, between the state and its citizens. Between 2008 and 2017, we went from 18 billion to 11 billion addressed mail items. Our traditional role, the physical transport and delivery of mail, is disappearing. This is an invitation to conduct an in-depth analysis of our business model, and the viability and utility of our services of general economic interest (SGEI), focused on the delivery of mail and print media, as well as physical accessibility to postal and banking services.

### A crucial transformation for the future of La Poste

In the face of adversity, La Poste has always been able to reinvent itself while preserving its core identity: to be a local actor, prioritizing above all the interest of its users, guarantor of the SGEI that the state has entrusted to it. To achieve this, we must engage in a successful transformation that will be crucial for the future of La Poste. Undoubtedly, it will be the most complex transformation in more than five centuries.

To this end, we have launched a major transformation plan for our business, focusing as in the past on diversification. Since 2006, we have developed our financial activities by creating a common law bank, fully integrated into our business. International parcel and express activities have also been regularly expanded. Today, we are developing local services, ranging from recycling of office waste to organization of the highway code test, and personal services, especially for the elderly, to promote "aging well" at home. We are also developing digital services such as our digital safe, Digiposte +, which makes it possible to securely store personal documents (payslips,

certificates, medical data, etc.). We are reinventing the role of the postman and our physical-presence network. At the same time, we need to change the postal rules and regulations by broadening the scope of reflection to that of the entire digital economy in which we are now evolving, to redefine the SGEI, the most recent of which were defined 25 years ago, while the oldest (the transport and delivery of newspapers and periodicals) stretch back more than two centuries. For this, economists' analysis of societal changes and new competitive mechanisms is essential.

### New fields for economic analysis

I would like to mention two examples that are close to my heart: the definition and fair compensation of SGEI on the one hand, and the establishment of a fair competitive playing field in our new ecosystem on the other hand.

It is the responsibility of the public authorities to define SGEI in terms of the benefits and costs they generate for the community. Economists have developed very sophisticated methods for doing such cost-benefit analyses and valuing sometimes intangible elements (such as the impact of the postal presence on social connections or the externalities it generates for related commercial activities). In view of the societal changes that have given rise to the decline in the volume of mail and the decline in visits to post offices, this issue of the costs and benefits for the community of the SGEI entrusted to La Poste deserves to be studied. Once the responsibilities have been properly defined to meet the needs of the users, the operators responsible for these SGEI must be compensated at a fair price for the additional costs to be borne. At the beginning of the 2000s, economists defined the most relevant method of calculating these net costs, corresponding to the difference in profits made with and without the public service role. This calculation involves a scenario that is expected to remain theoretical, in which the operator is relieved of its obligations. Mobilizing economic analysis to build these counterfactual scenarios can only make them more credible and robust, less controversial and less susceptible to challenge before the competition authorities and the European Commission, in the context of competition litigation and state aid control.

Critics might, as in the past, denounce La Poste's diversification strategy, accusing it of relying on its SGEI and its dominant position in the mail market to expand into new business sectors. But can we really compare a company in a dominant position in a declining market that attracts no rational investor and a company in a dominant position in a growing market? What power does one derive from being not the only company in a market, but the last? What power do we derive from a dominant position in an intermediate market, providing an input (I am thinking here of parcel delivery) to economic players with quasi-monopsony power?

Economists' analysis of competitive practices and the structure of data-driven markets in the digital economy, characterized by the presence of network externalities that inevitably lead to the creation of dominant positions, is essential to adapt competition rules to the new ecosystem in which we operate. Issues relating to the dominance of certain players, competitive distortions based on tax optimization strategies, the exploitation of collaborative work, personal data, etc., must be at the heart of the debate. These projects, and many others, will mobilize the teams of economists in Toulouse and at La Poste in the years ahead.





## TSE research partnerships: The imperative and the opportunity



Jean TIROLE - *President, TSE*

TSE's partnerships were born of a confluence between a need and an opportunity. The need was for an innovative approach to financing economic research in France. Jean-Jacques Laffont, the founder of the team of Toulouse economists, had identified France's lack of attractiveness to researchers. In the 1980s, he had succeeded in bringing a handful of leading researchers to Toulouse to create a world-class department. The challenge was to find financial means without compromising researchers' independence or distracting them from the scientific approach.

To meet this challenge, TSE built long-term partnerships with both private and public economic actors. The scope of these partnerships, their spirit, and a close interaction with these economic actors allowed the researchers to develop original research topics, which had to meet a double requirement: on the one hand, to be relevant for the company strategy and the public policy of market regulation; on the other hand, to be validated by the scientific community.

The need for independence presented a serious challenge, especially since TSE could not rely on the experience of other research centers in economics, few of which had taken the same path in France or even abroad. We have undoubtedly benefited greatly from "positive selection", the partners who financed TSE being ready to play the game; these partners also understood that independence is a guarantee of credibility. We have also seen that a clear contract on the objective of the partnership reduces the likelihood of a misunderstanding, while the long-term perspective "discards" partners who are targeting a consulting activity.

The diversification of partnerships was, of course, problematic at first. We were helped in this area by our historical partners (EDF, France Telecom, La Poste) who, understanding our initial fragility, did not seek to profit from it. Gradually, the number and the thematic diversity of the partnerships grew, bringing TSE greater diversification and this was also a guarantee of independence.

Validation by major international journals reminds researchers of an important purpose of the partnership: the pursuit of pioneering research on new issues. This is a big difference with consulting or advisory roles which, in the vast majority of cases, lead to interesting ideas, but these ideas are not developed or codified so that they can be passed on to others.

## The opportunity

Economic research offers a dual opportunity: to confront challenging and intellectually exciting theoretical problems, and to contribute to public and private decision-making. Economics is a positive discipline (insofar as it seeks to document and analyze individual and collective behavior), but it is also normative: ultimately, its purpose is to "make the world better" by issuing recommendations about economic policy.

In the past 30 years, economic science has become a major tool of reflection and decision-making, particularly thanks to the development of the new microeconomics based on game theory, contract theory and incentive theory. Validated by econometric and experimental tests, theoretical breakthroughs have led economists to recommend numerous reforms in how to regulate markets and manage organizations. Beyond the sterile dualism between liberalism and planning, it now appears that the smart regulation of markets by the state makes it possible at best to reduce their inefficiencies while limiting the negative impact of this interventionism on innovation and creativity.

## The genesis

More specific to the genesis of the TSE partnerships is the institutional context of the 1980s, when we began to talk about structural reform projects in the telecom, electricity, postal, railway and other sectors. Jean-Jacques Laffont and I felt that if the new theories of information and the industrial economy were developed, they could shed important light on both the design of reforms and their limits.

Toulouse economists have contributed decisively to the development of theoretical concepts, analytical tools, and econometric tests. They have earned their international reputation through a strategy of rigorous modeling, econometric and experimental validation of these models, and a determination to use this scientific method to provide concrete answers to the major economic problems of our time.

## The partner

The loyalty of TSE partners (dating back about 25 years for the first ones, such as La Poste) suggests that beyond a disinterested support for fundamental research, the partner perceives tangible benefits.

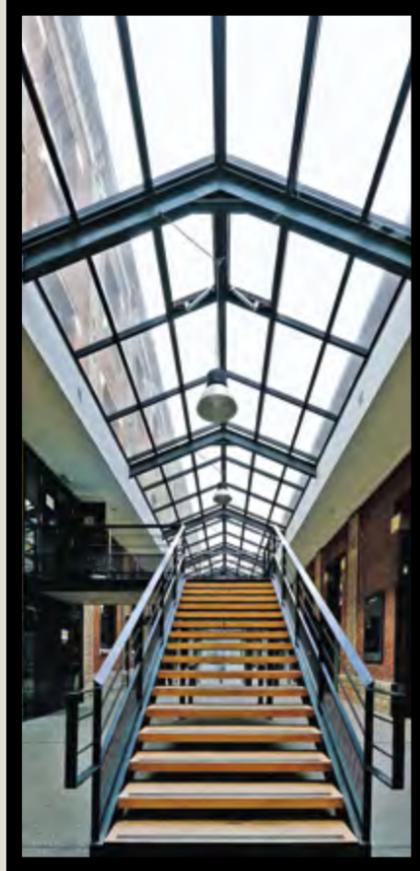
TSE researchers participate in the transfer of cutting-edge economic knowledge; the vectors are internal seminars, the organization of international conferences, brainstorming sessions on hot topics, etc. This gives partners privileged access to knowledge, allowing them to refine their strategy. Partners also acquire useful instruments to debate regulatory developments.

Keynes said, with some exaggeration: *"Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back."*

Thanks to the partnerships, Toulouse's economists have a long tradition of producing and disseminating knowledge within regulatory or competition authorities, multilateral organizations or central banks. And interactions with partners in the economic world have allowed them to engage more in "extensive" research and less in the productive but less original paths of "intensive" research.

The utility for the partner of knowledge creation, the ultimate "public good", requires discussion: what can the partner expect to gain from a relationship generating knowledge that is freely shared because of the need for independence? Economic research is not a zero-sum game; its goal is to create an environment that enhances social well-being. Failure to understand economic phenomena is very costly for society. For both businesses and for society, a rational and informed debate is better than misguided policies.





The purpose of  
the partnership  
and the keys to  
its success



## The purpose of the partnership and the keys to its success

### Research and regulation: The issues at stake



**JEAN-PAUL BAILLY**  
President and CEO, Groupe La Poste (2002-2013)

When I was appointed President and CEO of Groupe La Poste in September 2002, the research partnership between La Poste and TSE was almost 10 years old. Its importance was obvious to me as the issues surrounding postal regulation were, and remain, crucial for the company.

Indeed, La Poste operates in an environment that is both competitive and highly regulated. In addition to the competition law to which any company is subject (with, however, specific obligations for companies in dominant positions, as La Poste is in the domestic mail and parcel markets), the company is subject to specific national and European sectorial regulations: regulation of postal activities, banking regulation, customs regulation, transport law, etc. In charge of four SGEI (see box), some of which give rise to partial financial compensation from the state, the company is also subject to state aid control by the European Commission.

### The need to build a sound economic theory

Understanding these regulatory constraints is essential to ensure good governance and the future of a company like La Poste. The constitution of a sound economic theory is in this respect a real competitive advantage: it allows one to speak on an equal footing and to be heard in the arcana of power, whether in Paris or Brussels.

And this is especially true as the economists of TSE and those of La Poste, led by Joëlle Toledano and Bernard Roy, are internationally renowned for the excellence of their work, a glimpse of which is provided in the following pages.

Their work has unquestionably helped to structure postal regulation at the European and national levels, particularly during the debates that preceded the adoption of the third postal directive in 2008 and its transposition into the French postal law of February 9, 2010. If I had to mention only one thing, I would evoke the work on price regulation which led the lawmakers to choose a multi-year framework, in coherence with the theory of incentive regulation developed by Jean-Jacques Laffont and Jean Tirole.

## THE FOUR PUBLIC SERVICE MISSIONS ENTRUSTED TO LA POSTE

Four public service missions, at the heart of the Groupe La Poste's identity, have been entrusted to the company by the state: the universal postal service, contribution to regional planning through its network of contact points, transportation and delivery of newspapers and periodicals, and accessibility to banking services. The last three are partially financed by public subsidies. The net cost of universal postal service obligations is currently fully borne by the operator.

► **The universal postal service**, defined by the European directive 97/67/EC, guarantees to every European citizen a permanent postal service, of fixed quality, in every point of the territory, at affordable rates. It involves the delivery to any person's home and the collection of postal items up to 2kg, parcels up to 10kg and registered and insured items, at least five times a week, as well as access to post offices and mailboxes; the compliance to predetermined national and international transit times, and affordable, cost-oriented prices. In France, the Parliament opted for an extended universal service by increasing the frequency of collection and delivery to six days a week and by extending the collection and delivery of postal parcels by up to 20kg. In addition, it went beyond the mere "affordability" of postal services by imposing price equalization on individually sold postal items, issued and delivered in metropolitan France. In other words, whatever the destination of your letter within the national territory (whether it travels 10km or 1,000km), you pay the same price despite a very different cost borne by the postal operator.

► **The role of contributing to regional planning** goes hand in hand with the universal postal service. Article 6 of the Law of July 2, 1990, as amended by the law of May 20, 2005, specifies that La Poste "contributes, through its network of contact points, to the maintenance and development of the national territory". To fulfill this role, La Poste is subject to more restrictive accessibility rules than those imposed for universal service: "Except in exceptional circumstances, these rules may only allow no more than 10% of the population of a department to be more than 5km away, and more than 20 minutes by car, in the traffic conditions of the territory concerned, from the nearest contact points of La Poste."

The postal law of February 9, 2010 adds that the La Poste network "has at least 17,000 points of contact spread over the French territory, taking into account its specificities".

► **The aid for the postal transport of the press**, registered in the law of July 2, 1990, is part of the panoply of so-called "indirect" aids for the written press sector. It translates concretely into specific rates granted to the political and general information press, daily newspapers with low advertising resources and publications with an authorization from the Joint Committee on Publications and Press Agencies. These tariffs, lower than universal service rates, are supposed to "favor pluralism, especially that of political and general information".

► **The responsibility of banking accessibility** entrusted to La Poste by the law of July 2, 1990 is provided through the Livret A of La Banque Postale. The latter is subject to specific obligations, in addition to the common-law operating rules of the Livret A, such as the obligation to open a Livret A to any natural person who requests it, the possibility to withdraw or deposit cash from €1.50, holding the income paid by public bodies, and making transfers and withdrawals to pay certain services (income tax, various taxes, gas and electricity bills, etc.).





## The purpose of the partnership and the keys to its success

### Sharing the spirit of economics

► **Marc-André FEFFER**

*Groupe La Poste's deputy head of strategy and innovation, international development, regulation and law (2004-2015)*

► **André GRIMAUD**

*UTC-TSE professor*

► **Bruno ROSELLINI**

*Deputy head of strategy and programs in Groupe La Poste's mail and parcel branch (BSCC), in charge of the first partnership research agreement*

**What led La Poste to participate, starting in 1993, in the TSE adventure? What were the issues and the challenges facing Groupe La Poste?**

**BR:** The era was marked by the first discussions around the opening of the postal sector to competition at European level. Contrary to what one could observe in other companies such as France Telecom or EDF, La Poste did not have a "business economy" culture. I thought it was necessary to "beef up", to develop the economic theory, a body of thought, taking into account the specificities of the postal sector, to carry out the discussions with the various stakeholders.

At the time, this concern was shared by only a few officials, like Didier Brune or Nicolas Routier; it was not yet a concern of the General Management. However, we benefited from the confidence of the Director of the Mail Division and had the freedom to investigate the topics that we thought were important.

Since the first projects, this partnership has come to be perceived as strategic by the General Management, in terms of its benefits: the contribution of rational arguments in the discussions on the liberalization of the postal sector, on the one hand; the success and esteem that has been bestowed on La Poste, which has become a European leader in postal economics, on the other.

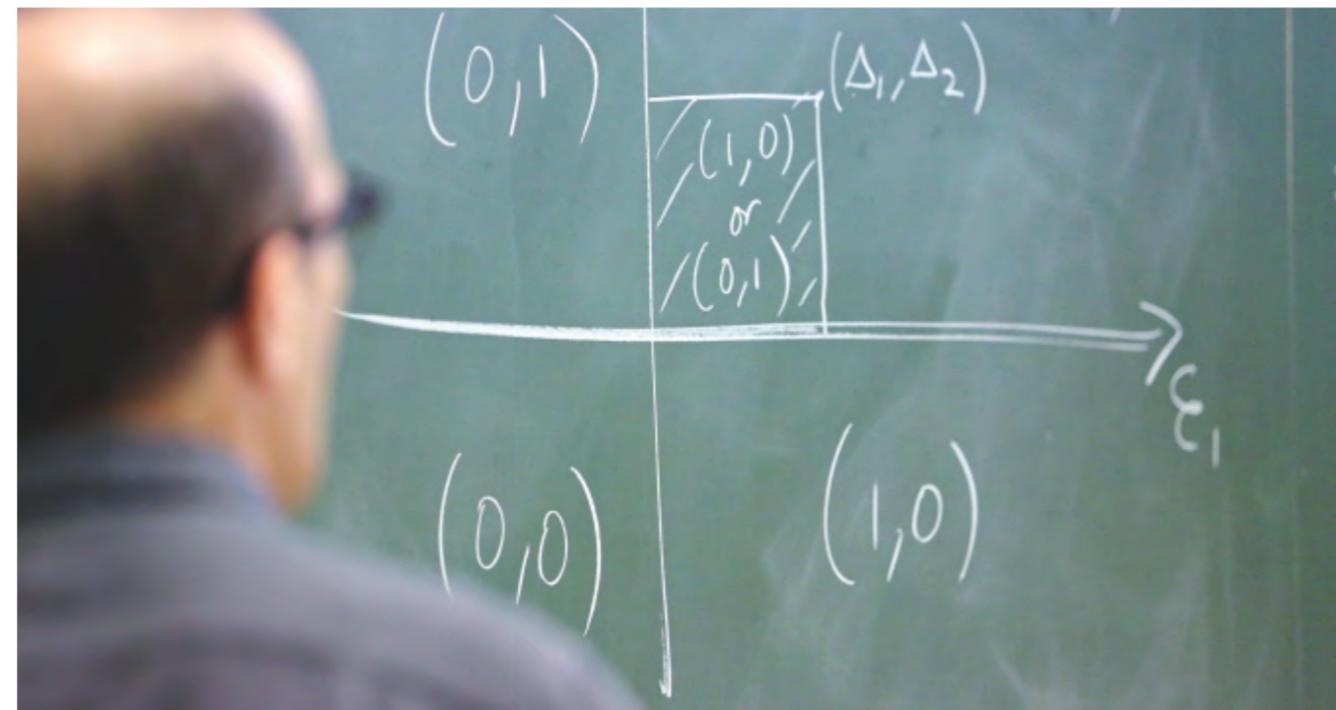
**MAF:** It's easy to forget how much of a shock the opening up of the postal market to competition was for a large public service monopoly company like La Poste. The Toulouse economists offered us a conceptual framework to reflect on and prepare for it. Their research has been invaluable to us. They accompanied us in the management of an activity in competition and the implementation of postal regulation and its tools (especially the price cap).

The same goes for the work that preceded the creation of La Banque Postale. This new bank had to be irreproachable in competition law to pass the hurdle of authorization by Brussels. The question of price and conditions of access to the postal network and other La Poste services was crucial, and the conceptual contribution of TSE was significant.

**What are the keys to the success of a partnership between a research center and a company in general, and between La Poste and TSE in particular?**

**MAF:** Sharing an economic culture and common standards, listening, and mutual respect in a close collaboration. The company must be convinced of its interest in working on a conceptual approach and to invest in understanding the models developed. It must engage employees who share the scientific and economic culture of the research center.

Likewise, the research center must understand that it is not only working for theoretical and/or academic purposes, but also to inform the company's strategy and to provide it with a frame of reference for action. It must try to understand the constraints imposed on the company. Nevertheless, everyone keeps their position: the research center is not there to define the strategy of the company; and the company ought not to skew the analysis.



**AG:** For academics like me, it is very positive to have regular contacts with people in the business world. In particular, because it constantly raises new questions that we would otherwise not have considered. Beyond the professional perspective, I cherish the memory of a relationship based on deep mutual trust.

This trust is closely linked to the fact that everyone is convinced that there are strong complementarities between the two partners. The partnership between La Poste and TSE has had an important empirical component. Here, the complementarities have been clear. On the one hand, La Poste people have "field" knowledge of the issues that researchers cannot have. At the same time, these people have access to unique data. On the other hand, econometricians bring their expertise in modeling and quantitative data processing. Ultimately, the discussions about the data and their treatment enrich the exchanges between the two partners.

An important condition for being as credible as possible is that the results of our partnership are public and verifiable. This is why we (La Poste professionals and TSE researchers) have published together several articles in French and international journals, and in publications related to the postal sector.

**BR:** The success of this partnership is a combination of factors. First, the need to strengthen ourselves, to support our arguments in the context of the opening of the market to competition.

The trust that the company's leaders gave us at the time and their growing interest in these academic issues. Proof of this can be found in the preface by President Jean-Paul Bailly to the book 'Économie Postale'.

The loyalty of TSE researchers who have been with us since 1993. Despite its growing reputation, TSE never put an end to its research contract with La Poste.

The competence of the team of internal economists, formed by Joëlle Toledano, Director of European and National Regulation in the 1990s, who were able to challenge TSE researchers and exploit the results of the academic work.

**What is the reason for the longevity of this partnership?**

**MAF:** A good understanding between the teams and the sharing of a common economic culture play a vital role. Also, the fruitful nature of this partnership which has been able to adapt, in the work carried out, to the evolution of the problems faced by La Poste. Finally, the steady conviction of successive leaders of La Poste and TSE in the profound long-term benefits of the partnership.

For a large network company such as La Poste, which may have been at times and for certain activities in a monopoly or a dominant position, scientific reflection and modeling are essential to guide action, be it the modeling of the network of post offices or postal regulation. Our cooperation with TSE has been and remains very useful.



# A success on all fronts

### BERNARD ROY

Head of Economic Studies in the Strategy Department between 1995 and 2004,  
Director of European and National Regulation until 2010



## The telecoms precedent

This partnership, which was initiated by La Poste in 1993 by Bruno Rosellini, already existed at France Telecom. Let's remember that at that time La Poste, despite its great age, was legally very young. It ceased to be an administration in 1992, taking its first steps as a public company with managerial autonomy. It looked like the poor little sister of France Telecom, which enjoyed all the attention. And it is true that the world of telecommunications was undergoing such a revolution that it attracted a large part of the focus of scientific and economic research: major technological innovations (fiber optics, mobile phones), full market liberalization planned for 1998, and establishment of an independent regulator (at the time ART in France). And while telecoms benefited from a very strong academic body of work, inherited from the seminal work in the 1980s in the USA following the dismantling of ATT, the postal sector had practically no economic framework capable of helping it to overcome the hurdles of regulation or an eventual (albeit partial) liberalization.

The genius of Joëlle Toledano was to anticipate that once the telecoms wave had passed, it would be the turn of the postal services. And that in the absence of a strong economic body of work, ad hoc, the temptation would be great for lawmakers to transpose the telecoms tools to the postal sector. Once we know the comparative characteristics of the sectors, it is quite easy to see how regulatory tools or the introduction of competition that were suitable for the telecommunications sector could have been disastrous for postal services around the world.

The regulation of access to infrastructure is perhaps the most illustrative example. The liberalization model chosen for telecoms was to introduce competition in certain segments of the process, by regulating, in an asymmetric way, access to parts of the production process that had the characteristics of a natural monopoly (essentially, the local loop). After the postal directive of 1997, and the total liberalization of telecoms in 1998, we were about to restructure the postal network to open up access following the model of telecoms, without much wondering about the economic relevance of such a regulation, and despite the impacts via interoperability and circumvention on employment, universal service, regional planning, or quality of service. The postal sector economy is much more complex than it appears, and in reality has very little in common with the telecommunications economy.

## A strategic partnership

The partnership with TSE was therefore of major strategic importance, not only for La Poste, but also for the European postal sector, and even for the US Postal Service (USPS), with which La Poste maintained very close relations in economic research for more than 20 years! Joëlle Toledano was able to propel the partnership initiated by Bruno Rosellini to the top of the agenda of the company following the 1997 directive, creating a dynamic that was both rewarding and focused on important issues.

This is undoubtedly the reason why this partnership has worked so well. The demand for an in-depth economic examination of the sector was such that the research needed to be planned over several years. The researchers at TSE were very excited about this "clearing of the terrain", which was made all the more interesting because the subjects brought by La Poste were concrete, very diverse, and all absolutely fundamental to understanding postal regulation: economies of scale in delivery, cost and financing of the universal service, collective utility of postal SGEI, efficiency frontiers, vertical and horizontal relations, theories on access in the sector (the famous 'worksharing').

TSE knows how to mobilize economic and econometric arguments with such virtuosity that they appear simple and understandable for business economists. La Poste's teams of economists are in constant contact with internal staff, and have regularly brought important and topical subjects to the Toulouse working table as they have direct contact with the highest level of the company.

The period of the partnership corresponds with one of unprecedented legislative and regulatory evolution in the sector: three postal directives (1997, 2002 and 2008), two transpositions into French law (laws of May 2005 and February 2010), and the creation of the postal regulator (ART becoming ARCEP) after the law of 2005.

The contributions of the partnership have undoubtedly made La Poste much stronger to assert its interests, those of its customers and its users in this context of legislative and regulatory transformation. The cross-fertilization of the teams allowed the TSE side to make a much more concrete consideration of the problems of the sector than would be possible for researchers working alone, orienting the academic work towards the search for results that might be useful for the sector. And at La Poste, the teams of economists were able to propagate an intelligent and nuanced culture of applied economics, always taking into consideration the various stakeholders, whose arguments have inevitably been made more credible.

## Commercial discounts

While the collaboration with TSE focused on the major societal issues of the sector, the Toulouse research center also supported La Poste on specific and important issues of regulation and competition. For example, the dispute over access to commercial discounts by routers and consolidators from 2005 to 2006 was an issue of considerable importance for La Poste. La Poste gave quantity discounts to its individual customers, and refused mail consolidators access to these "by volume" tariffs. The latter were paid for the preparation of flows (mainly sorting and packaging) but could not benefit from quantity discounts despite the aggregation of flows from different senders. This aggregation of the flows of several different clients, however, allowed the routers to obtain flow deposits whose quantity was even greater than that of the largest customers, and therefore demanded equal treatment on pricing.

La Poste had historically, and wrongly, justified these quantity discounts by economies of scale in delivery. In fact, this was a second-degree tariff discrimination mechanism (according to the 1929 Pigou classification) designed to encourage each customer to increase their marginal consumption, without reducing La Poste's margins on the first units. This form of discrimination brings concrete economic benefits to society, provided certain conditions are met (which was indeed the case). The benefit of these quantity discounts cannot be obtained by aggregation via intermediaries then resold, because this resale would dissipate all the benefits of the mechanism. Access to these rebates for the routers and consolidators would have immediately called into question the very existence of these price reductions, because it would have resulted in profound net losses for La Poste. In this situation, in which the stakeholders were not only ARCEP and the competition authority, but also the Courts against which La Poste had to defend itself, the undisputed economic support of TSE was a serious advantage for La Poste to be able to assert its rights. It was in this way that this issue, because it was perfectly clarified by the economists, was decided in favor of La Poste. The Court of Cassation even spelled out one of the key arguments: routers cannot have access to commercial discounts because they do not have a demand function. A true plebiscite of the economic rationale by French case law!

Meanwhile, other postal operators in Europe failed to make the regulatory authorities in their countries listen to reason, the latter adopting more radical postures against any form of discrimination, even if it were beneficial to the collective. The French decision has since considerably redrawn the balance at the European level.

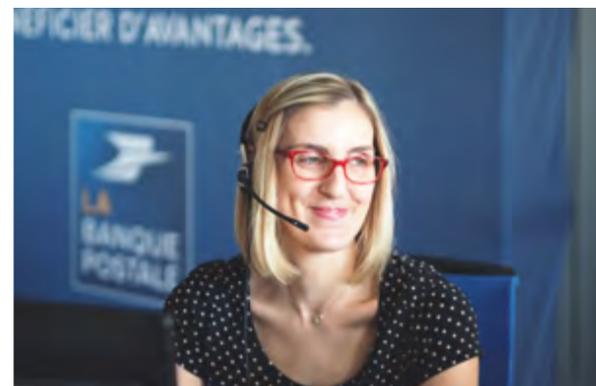
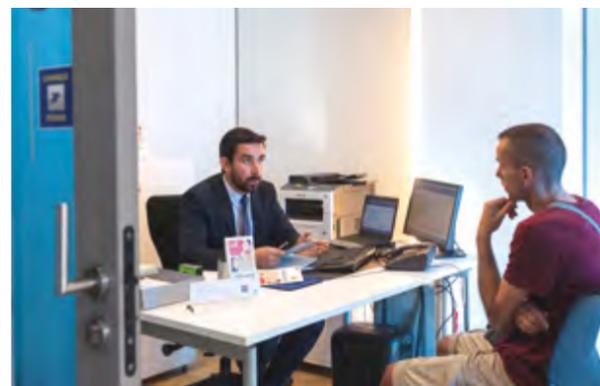


## The purpose of the partnership and the keys to its success

### Internal acculturation

Ultimately, this internal acculturation of applied economics, resulting from the proximity with Toulouse, and which I'd like to believe is now part of "the postal DNA", also had implications (or what economists call externalities) for subjects that were not in the work planned with TSE. For example, the creation of La Banque Postale in December 2005 relied on very thorough economic work relating to the allocation of the costs of the post offices network, using opportunity cost and counterfactual scenarios. These applied works could probably not have been developed without great proximity to the academic world, and the great skill in handling economic tools developed within the company. Similarly, for La Banque Postale, the complete liberalization of the Livret A was accompanied by the enhancement of the banking accessibility role, and its recognition by the state, simultaneously addressing its cost and its financing.

In conclusion, I would say that the partnership with TSE has been a success on all fronts, and that it has even translated into considerable net financial gains for La Poste, thanks to more enlightened regulatory decisions founded on economic reasoning. The conditions for this success lie not only in the talent and open-mindedness of the TSE teams, but also in the caliber, application and accompaniment of La Poste's economist teams, in a context in which research focused on concrete, priority issues for the company. It has clearly contributed to La Poste's economic acculturation, lifting the regulation department's teams to the highest level of economic expertise, and even giving them a form of leadership in Europe. This acculturation is visible in the dozens of scientific economic publications produced between La Poste and TSE, mostly collected and translated into French in two books published by *Economica: Économie Postale* (edited by Joëlle Toledano) and *Libéralisation et Services Publics* (edited by F. Boldron, C. Borsenberger, D. Joram, S. Lécou, and B. Roy).



### A REPLICATED PARTNERSHIP

#### Frank Rodriguez, Chief economist at Royal Mail (1997-2007)



*Frank Rodriguez joined Royal Mail as an economist in 1988. He served as chief economist from 1997 until 2007. Since then he has been an associate at Oxera and has continued to work with economists at Royal Mail and TSE, co-authoring papers on a range of topics in postal economics.*

The link between TSE and Royal Mail began in 1999. That time was at a key point in the development of postal policy in the EU, coming between the first and second postal directives. The beginning of this partnership coincided with the setting up of an independent postal regulator in the UK, itself a result of the first directive. There was a very clear need for analysis of several important economic questions impacting on postal policy. How (and how far) should postal markets be opened to entry? Would a universal postal service be sustainable? How should postal prices be controlled?

These and many other questions were high on the agenda, not only for policy makers, but also for national postal operators and universal service providers such as Royal Mail. Thorough and impartial analysis of these issues would be best served by independent, high-quality researchers using leading-edge economic theory and tools. The postal economics research group at TSE was clearly the best equipped internationally to research these topics.

Royal Mail approached TSE to undertake a study on the specific issue of the sustainability or otherwise of the uniform tariff after market opening. This topic was, at the time, one of much debate between Royal Mail and the relevant directorate at the European Commission. The research was led by Helmuth Cremer and Philippe De Donder. The results of the work, communicated through conferences and papers published in academic journals, were used by Royal Mail in its discussions and exchanges with policy makers and regulators both in the UK and at the EU level.

A series of further collaborations followed on key economic questions of interest to Royal Mail, many of them relating to the evolving regulatory framework. The subjects covered by these projects included the funding of universal service, the pricing of access to postal networks, the economics of price controls and the effects of Value Added Tax on competitive entry. Much of this research was presented at conferences and circulated more widely through published papers.

As part of the partnership, work developed too on topics in postal economics requiring econometric modelling where TSE had also established an international reputation for research of the highest standard. One early project led by Jean-Pierre Florens and Cathy Cazals was on the estimation of delivery cost elasticities using UK data which produced conferences and published papers on the subject with Cathy as the lead author. Other projects followed on the econometric side including work on price elasticities, demand modelling and forecasting issues generally, many of these involving also Frédérique Fève. As with the economics studies, these pieces of research were invaluable in raising understanding in critical areas of importance for Royal Mail internally and in engaging with the UK postal regulator.

The strong links between the researchers at TSE and Royal Mail have continued and flourished since these earlier projects. Not only has the partnership benefitted the company but it has also been of great value to the economists at Royal Mail by allowing us to work with the best researchers in the field on postal economics and gain much in terms of our own knowledge and skills in economics and econometrics. Indeed, I think I speak for all the economists at Royal Mail who have had the very good fortune to work with the team at TSE in saying that we have all personally learned much and benefitted greatly from the association.



## The purpose of the partnership and the keys to its success

### The characteristics of partnership research



HERVÉ OSSARD  
IDEI director

*How do La Poste and the IDEI's shared projects illustrate the general approach of Toulouse economists to partnership research?*

**HO:** This 25-year-old shared adventure has all the features that we believe are desirable for partnership research. First, it has produced new knowledge published in peer-reviewed scientific journals. Other researchers have spread the work of TSE economists in the context of their own research. In addition, this knowledge has been disseminated to a wider audience than just specialists in economic research.

These achievements were possible thanks to a set of important conditions: a long-term partnership, which is necessary for scientific research; an in-depth dialogue to identify the issues which are both relevant to the partner, and at the frontier of current knowledge (these questions are often so original that the researchers say they would not have occurred to them without this dialogue with the partner); the mobilization of the partner's own research team, which works in collaboration with the team of Toulouse economists; the mobilization of appropriate financial and other means, which allow this investment to be doubly productive, both for the company and for the researchers.

To these characteristics common to other partnerships, we can add characteristics that are more specific to the postal sector.

*What are these specific characteristics?*

**HO:** Some of the issues raised are of general significance. This is the case, for example, with the regulation of monopolies, the economics of competition, or network economics. But other issues relevant to the partner are very specific. This applies to issues concerning the universal service obligations, which cannot be generalized to the economy at large.

Another specificity of this partnership is that two types of research – theoretical and econometric – were conducted. Looking at the work done under the aegis of the IDEI for almost 30 years, it is very rare to see both approaches used throughout a partnership, over many years. This is the only partnership in which this characteristic has been developed to such an extent.

This is due to the richness of the partner's data that has allowed econometric treatment of issues that otherwise would not have been addressed, such as the estimation of production costs or the variation of demand according to prices, which we call price elasticity.

**“ This 25-year-old shared adventure has all the features that we believe are desirable for partnership research. These characteristics, common to other partnerships, are complemented by characteristics specific to the postal sector. ”**





## The purpose of the partnership and the keys to its success

### Partnership research at TSE



**SÉBASTIEN POUGET**  
Director of TSE Partnerships

The main outputs of our partnerships are research papers at the intersection between the partner's interests and the expertise of our researchers. The aim is to achieve the best academic standards in an attempt to publish our work in top international scientific journals.

*TSE offers three ways of interacting with partners.*

#### 1) Innovative research

The main benefit of partnership research is to produce world-class academic knowledge that has implications for the way in which these subjects are addressed by the scientific community, as well as by partners, industry players and regulators. The relevance of the research is ensured by regular contacts between TSE researchers and partners.

The results of the partnership are public and verifiable. La Poste professionals and TSE researchers have published together 57 scientific articles in French and foreign journals and in publications related to the postal sector. Most of these publications have been collated and translated into French in two books published by *Economica: Économie Postale* (edited by Joëlle Toledano) and *Libéralisation et Services Publics* (edited by F. Boldron, C. Borsenberger, D. Joram, S. Lecou, and B. Roy).

##### **Bernard Roy**

*"The partnership has clearly contributed to La Poste's economic acculturation, lifting the regulation department's teams to the highest level of economic expertise, and even giving them a form of leadership in Europe."*

##### **Jacques Crémer**

*"The partnerships with La Poste and Royal Mail have been one of the great successes of IDEI and TSE. They have been strategic for our partners and have helped build what is undoubtedly the best research group on the postal sector in the world. The sector is in the midst of a transformation that poses intellectually interesting problems that have important implications for society. I am very proud to have contributed to this success."*

#### 2) Strategic brainstorming

Strategic brainstorming meetings can be organized on an ad hoc basis. During these meetings, the researchers and the partner present their points of view on themes at the crossroads of their interests and skills. These meetings give rise to exchanges that can inform strategic thinking and improve understanding of the issues by researchers.

##### **Claire Borsenberger**

*"It's always a pleasure to come back to Toulouse, to the premises of the Manufacture, to work on various exciting topics, and share agreeable moments of conviviality!"*

##### **André Grimaud**

*"For academics like me, it is very positive to have regular contacts with people in the business world. In particular, because it constantly raises new questions... The people of La Poste have a "field" knowledge of the issues that researchers cannot have. At the same time, they have access to unique data. On the other hand, econometricians bring their expertise in modeling and quantitative data processing. The discussions enrich the exchanges between the two."*

##### **Bernard Roy**

*"TSE knows how to mobilize economic and econometric arguments with such virtuosity that they appear simple and understandable. La Poste's teams of economists have regularly brought important and topical subjects to the Toulouse working table as they have direct contact with the highest level of the company."*

#### 3) Scientific events

The partner and researchers can organize scientific events around themes at the intersection of their interests and skills. These events can have an internal orientation, the partner inviting his teams to interact with the researchers. They can also have an external role, where researchers present the progress of research to a public composed of researchers and the partner's stakeholders (customers, suppliers, administrators, civil society, etc.). TSE researchers belong to various networks of top economists across the world and can mobilize them to produce valuable insights on strategic issues.

Since 1999, TSE and La Poste have jointly organized 10 postal economics conferences, held every two years in Toulouse. While the conference was initially focused on the issues of regulation, competition and universal service, in 2012 its scope widened to include new research themes in the light of the challenges faced by postal services in the digital world. The conference is now the forum for exchanges between high-level professionals and researchers on issues related to e-commerce, digital economy and delivery services. The events encourage the discussion of recent theoretical, econometric and policy-oriented contributions, fostering constructive exchanges between professionals and researchers.



# 25 years of research: Views from La Poste and TSE



25 years of research: Views from La Poste and TSE

## What's the utility of a postal economist?

**JOËLLE TOLEDANO**

*Head of Economic Theory for the Strategy  
Department from 1993 to 2001*

*Director of European and  
National Regulation until 2005*



### The postal sector, unlike any other

A quarter of a century ago, postal services were not considered as businesses quite like others<sup>1</sup>. In France and elsewhere, the postal sector was both emblematic of a public service and a centuries-old tradition of physical presence throughout the national territory. In addition, people often see La Poste through their own experience as a consumer: a distorting prism given that the largest mail flows are industrial flows deposited in a truck in a sorting center and not letters slipped into a yellow box. The relatively small amount of mail sent by individuals - even a quarter of a century ago - together with the importance of large customers, radically alters cost structures and certain economic analyses. These different characteristics reinforce the originality and attractiveness of the work of a postal economist.

### Cost accounting based on economic theory and econometrics

Competition disputes ushered in economic analysis at La Poste. At the beginning of the 1990s, La Poste, a public establishment with a legal monopoly on mail, already exercised a significant part of its activity in competitive markets and sought to adapt to their evolution. In 1985, it created a private-law subsidiary, Chronopost, to develop express transport services. Historically present in personal financial services, it also sought, to counter the decline in its market share, to develop sales of banking and insurance products. Taking their case to the European Commission, La Poste's competitors challenged the conditions under which those activities were carried out<sup>2</sup>. In the field of banking services, the French competition authority was also asked for an opinion<sup>3</sup>. In the different cases, the presumptions of illegal state aid or abuse of dominant position (based on hypothetical direct or indirect transfers of public resources from public service activities to competitive activities) were at the center of discussions. If La Poste was to be able, in these cases, to show the absence of anticompetitive practices, it needed accounting analysis to systematically check the absence

<sup>1</sup> Some of them were still public institutions or administrations.

<sup>2</sup> The original complaint dates from 1990 and was not resolved until 2008: C-341/06 P - Chronopost and La Poste / UFEX et al. On insurance: Judgment of the General Court in Case T-106/95 French Federation of Insurance Companies (FFSA) et al / Commission of the European Communities.

<sup>3</sup> Opinion No. 96-A-10 of 25 June 1996 on a request for an opinion from the French Banking Association concerning the operation of La Poste's financial services in the light of competition law.



## 25 years of research: Views from La Poste and TSE

of cross-subsidization, to distinguish fixed costs, and to establish the marginal and incremental costs. To carry out this accounting analysis, La Poste's general management made a rather original choice. Although all the company's business lines were associated with this exercise, as was the general accounting department, the team of economists was responsible for setting the cost allocation rules of this accounting analysis, and its annual production. This choice led to the use of cost allocation methods based on concepts consistent with the economic analysis of competition. To assist La Poste's team of economists in the development of this analytical accounting, one of the first lines of cooperation with Toulouse econometricians was to carry out econometric analyses of major mail production processes (delivery, sorting, network). This involved exploiting very large databases from La Poste<sup>4</sup>. The exercise was often complicated because the data was not directly exploitable. This econometric work enriched the internal analyses, which often relied on 'bottom-up' technical economic models developed internally.

### Projects on demand and competition

The other permanent side of the econometric work carried out by and with TSE concerned the analysis of the demand for mail, with the aim of identifying the determinants of postal traffic and predicting its evolution. Questions of sensitivity of demand to prices and technology have notably mobilized Jean-Pierre Florens and Catherine Cazals for many years<sup>5</sup>.

For a century and a half, the evolution of demand has been a recurring issue for postal operators. Predictions of the decline or even disappearance of postal traffic, and its replacement by the telegraph at the end of the 19<sup>th</sup> century, by telematics at the time of the famous Nora-Minc report, or by fax in the last decade of the 20<sup>th</sup> century were each time proved wrong... until stagnation set in at the beginning of the 21<sup>st</sup> century, followed by a steady decline in the past 10 years.

The 1990s and the beginning of the 21<sup>st</sup> century were also a period of intense and passionate debate about the establishment of a European postal regulatory framework. On the agenda of the discussions: the universal service and its financing (possibly by monopoly) and its cost; the consequences of the liberalization of the postal markets and in particular the terms of competition to expect; the new tariff and non-tariff regulations, to retain only the chapter headings. All these topics lead to regular work associating TSE with La Poste's team of economists.

Two subjects seem to me to be interesting in that the role of economists has not been the same.

The result of intense cooperation in a joint research program between TSE and La Poste, an entry model for the mail market was developed and calibrated<sup>6</sup>. It is a theoretical model of imperfect competition that analyzes the mechanisms for introducing competition into the postal market. It draws inspiration from the literature on product differentiation, takes a stylized view of the postal-sector economy and experiences of liberalization abroad, and its main purpose is to understand the entry dynamics and response strategies. In particular, it uses a technical economic model of entry into the postal market previously developed by Bernard Roy, which also relied on cost accounting. To illustrate the possible applications, several entry scenarios, built from the characteristics of the French market and the behavior observed in liberalized markets, were calibrated<sup>7</sup>. The characteristics of the resulting market equilibrium vary according to the assumptions made regarding the incumbent's ability to adapt pricing policy. Some of these results have been made public<sup>8</sup> in an academic journal.

This work showed the limited risks posed by the introduction of competition to the French postal market, once La Poste had sufficient tariff flexibility. Yet these results, probably because they are somewhat counterintuitive, have had difficulty in being accepted, and not just in France. For a long time, the delivery of addressed mail was perceived as contestable business that would be easy to replicate because, given its reliance on manpower, physical investments would be limited. Moreover, many articles that can be grouped under the generic title of "graveyard spiral" were produced at about the same time and were concerned about the risks for operators of the introduction of competition.

Experience has shown that the main risks were not where they were expected, but in the major structural declines in traffic faced by most postal services in the path of the digital tsunami.

4/ Postal data is often very bulky, today we would call it "big data".

5/ With the help of Sandrine Rouzaud and Sarah Marcy.

6/ Helmuth Cremer, Jean-Pierre Florens, André Grimaud et Sarah Marcy, Bernard Roy and myself worked on it.

7/ Roy B. (1999), "Technico-Economic Analysis of the Costs of outside Work in Postal Delivery". In: Crew M.A., Kleindorfer P.R. (eds) Emerging Competition in Postal and Delivery Services. Topics in Regulatory Economics and Policy Series, vol. 31. Springer, Boston, MA.

8/ Cremer, H., Grimaud, A., Florens, J.P. (2001), "Entry and Competition in the Postal Market: Foundations for the Construction of Entry Scenarios". Journal of Regulatory Economics, March 2001, Volume 19, Issue 2, pp 107-121.

### The problem of network access

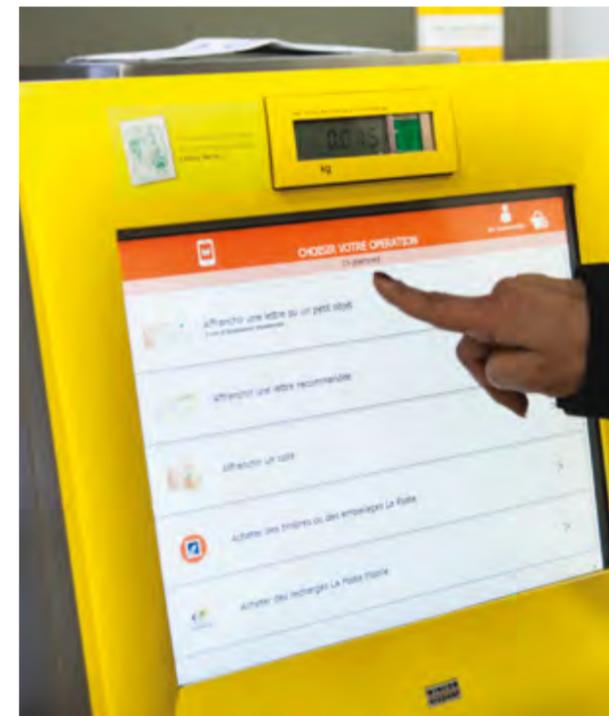
As a last example, access to the network in the telecoms or energy sectors has been an important complement to the process of opening up to competition. And economists have been the architects of the solutions put in place. In the postal sector, the issue of network access has certainly been much debated, but the European regulatory framework is not very prescriptive and national applications are heterogeneous.

Schematically, there are two opposing positions. On the one hand, the general idea was to promote economic efficiency, particularly that of the incumbent, by extending the practices of volume discounts prior to liberalization. On the other hand, based on a law-and-economics analysis imported from analyses of the telecommunications and energy sectors, access to the regulated network was seen as a means of increasing competition in the postal markets. The objective, by giving access to the delivery network, is to allow the profitable concentration of traffic, a necessary complement to the development of an alternative network. In short, access is supposed to be a form of "unbundling".

The work carried out by Helmuth Cremer, Etienne Billette de Villemeur and the economists of La Poste, for example, were part of the first school of thought. The aim was to define tariff structures with the right properties in terms of economic efficiency and these would adapt to the market structure and different categories of customers. The decisions of recent years by the Court of Justice (Bpost and Post Danmark cases) are in line with the results produced.

The actual situation of the European markets did not support the second position. When access was the objective, as it was in the United Kingdom for a certain period, it did not allow the development of end-to-end competition. The analogy with the telecommunications sector has sometimes served as a demonstration. But, extending the analogy and in view of the results obtained in different markets, access would instead be an interconnection catalogue service, the first ineffective phase of the liberalization of the market where the conditions of access alone define the conditions of competition on the downstream market, rather than an unbundling service that has supported the development of innovative services related to broadband access.

Through the above examples, I have tried to illustrate how La Poste economists and others have contributed to the evolution of La Poste with, as one would expect, varying degrees of success. I hope I have succeeded in showing the importance, scientifically and professionally, of the partnership with TSE for La Poste and its team of economists.





## How economic research can improve regulation

**DENIS JORAM**

*Director of Regulation and Research, La Poste*



La Poste's development of partnerships with the academic world has several objectives. First, there is the contribution of a civic-minded enterprise such as La Poste to the development of research in economics and to the development of a center of expertise recognized worldwide in this field for many years. There is also the acquisition and development of knowledge and expertise that is beyond the scope of the company, or that would be too expensive to produce internally.

But there is also La Poste's willingness to be able to rely, as far as possible, on scientifically grounded positions, particularly on issues of economic regulation. This is essential in the balance of power that we have with our stakeholders. The scientifically proven argument is always more powerful because it is both opposable and difficult to contest by more "opportunistic" arguments.

In the context of legislative changes, the scientific work produced can even guide the drafting of texts. This was the case, for example, with the theoretical work on the advantages and disadvantages of the various methods for calculating the net cost of the universal postal service obligations that could be envisaged, which led to the definition in the third European postal directive of a common method based on the definition of a counterfactual scenario (known as the profitability cost method).

### Contributing to the public debate

This is where scientific work can make us a strong proponent in our exchanges with the regulator, contributing to the public debate on structural principles of regulation. I must note here that this is a bit of a French specialty, when I consider the methods of influence used by other postal operators in Europe.

On other subjects, economic theory is not necessarily aligned with the interests of La Poste. In these cases, TSE's intransigence on the scientific rigor of its work challenges and pushes us either to engage in a stimulating discussion with TSE researchers to demonstrate that postal specificities are likely to change conventional academic results, or to find other solutions to defend our interests. This was the case with the work on the optimal way of financing the universal service, which made it possible to identify the specificities of the postal sector and to demonstrate the superiority of a compensation fund based on a tax on each item rather than on turnover.

However, for this collaboration to be effective and contribute positively to the interactions of La Poste with regulators, several pitfalls must be avoided.

### Scientific ethics

The first pitfall would be to not respect scientific ethics by seeking to twist the arm of the researchers working in these partnerships on results that would not be entirely in the interest of La Poste.

In fact, when scientific partners express themselves on subjects of general interest applied to the postal sector, their credibility is at stake. This scientific neutrality must be preserved, otherwise the impact of the work will be reduced.

Ultimately, the alignment of these "scientific values" between the company and the scientific partner is decisive.

### The research period

The second pitfall would be to not respect the amount of time required for the research, because the quality of the results depends on it. La Poste's anticipation of the research themes that will be relevant in the coming years is obviously crucial. But this is not enough. In addition to accepting that the publication of research articles is a motivational vector and in the interest of the academic partner, the stability of research teams is important when it comes to mastering the specificities of our business.

This partnership also allows La Poste to attract talented people from the highest level of the research community and, in return, to enrich this research by learning to communicate the specificities and strategic issues of the postal sector to TSE researchers. This pedagogical work takes time, but the exchange is crucial because the long-term quality and utility of the research projects depend on it.

### Communication

The third pitfall would be to not know how to communicate the results of the research didactically, both to external and internal stakeholders.

However, pedagogy for these theoretical works remains a challenge because their content is particularly technical. An important contribution is the production of papers presented at conferences (including the biennial postal economics conference held in Toulouse) with industry experts. This allows the dissemination of the research to a population of "insiders" who can then be a voice to lend credibility and raise awareness among their own stakeholders, who are often similar to ours. Outreach sessions on this research, through both targeted exchanges with external stakeholders and internal conferences at La Poste, contribute to its appropriation by the entire ecosystem.

The partnership between La Poste and TSE has always respected these rules, preserving the respective interests of both partners, which is the basis of an effective and sustainable partnership.





### Understanding the postal sector with econometrics



CATHERINE CAZALS  
TSE researcher

When the partnership between La Poste and TSE started, the debate about opening up the postal sector to competition was in full swing. It was therefore essential to acquire a thorough understanding of the economic characteristics of the postal sector before examining the problems relating to the optimal structure of the postal market.

#### Analysis of mail delivery costs

Among these characteristics, it was the cost function of the postal service that initiated a quarter century of applied econometric work on the postal sector under the leadership of Jean-Pierre Florens at TSE. One of the main objectives was to better understand the cost drivers and to quantify potential economies of scale.

The postal activity that was the subject of the first empirical work was mail delivery. This activity represents more than 50% of the total cost of the postal process (the other activities of this process being collection, transport and sorting), and is mainly a "manpower" activity, since labor represents more than 80% of the cost of delivery.

To carry out this initial analysis, La Poste gave us access to an incredibly rich database: "Statistics 742". This database contained information broken down to the level of the delivery rounds of postal workers in the delivery offices in the territory (more than 10,000 at that time), concerning the quantities of work for a multitude of tasks (various preparatory works of the round made "inside" the delivery office, and the actual round "outside"), the quantities of the various objects delivered (small letter, large letter, parcel...), and the geographical characteristics of the delivery offices (size of the delivery area, number of delivery points, length of delivery rounds...).

The first articles using this data, published in Cazals, Rycke, Florens and Rouzaud (1997)<sup>1</sup>, applied parametric and non-parametric estimation methods to demonstrate the existence of relatively large increasing returns to scale in the delivery activity<sup>2</sup>, as well as the subadditivity property of the cost function of this activity.

The "Statistics 742" database was then made available as a panel, which allowed us to refine the estimates of cost functions taking into account the unobserved heterogeneity between the delivery offices, by application of parametric and semi-parametric methods

(Cazals, Florens and Roy (2001))<sup>3</sup>. These latest estimates have also been used to evaluate the "size" effect of delivered items on cost.

This database is no longer being updated but econometric work to identify the cost drivers has continued using another, more aggregated dataset provided by La Poste, at the level of about 4,700 delivery offices and their "satellite" offices. In Cazals, Fève, Florens and Roy (2005)<sup>4</sup>, the cost of only "outside" delivery work is analyzed. The presence of economies of scale is again confirmed, but these economies of scale are smaller in large offices than in small ones. The main cost drivers identified here are per capita traffic, population density in the delivery area, and to a lesser extent, total traffic. In addition, the potential endogeneity of the organization of the delivery process (division in delivery zone and organization of the rounds) was taken into account.

In addition to quantifying returns to scale and a better understanding of cost drivers, La Poste has also focused on an analysis of efficiency in the delivery process. This was no longer a question of analyzing the cost function on a "medium trend" (by the regression), but of looking at the "frontier" cost function, that is, identifying the offices delivering a given volume of mail at the lowest cost, then measuring an efficiency score with respect to this frontier.

The various discussions and issues raised on this subject within the framework of the partnership thus contributed to the implementation of an original method of robust non-parametric border estimation (Cazals, Florens and Simar (2002)<sup>5</sup>). This method, as well as "standard" methods (SFA<sup>6</sup>, or DEA<sup>7</sup>) were applied to the postal data concerning the cost of delivery. We also investigated the role of environmental features (for example, the size or density of a delivery office's local area) in estimating these non-parametric frontiers.

#### Cost analysis of the network of contact points

The network of contact points (the "post office counters") was also the subject of a cost analysis during this partnership. We did some pioneering work on this theme because very little work existed in the literature.

This network is an essential element in the production of postal services. The post office counter is an entry point to the delivery system, but it can also be the last link in the delivery chain (for example, registered mail items collected at the counter). Services other than those related to mail delivery are also provided over the counter, such as deposit account keeping or bank account consultations.

We estimated the production cost elasticities for all the activities carried out over the post office counter (Cazals, Duchemin, Florens, Roy and Vialaneix (2001)<sup>8</sup>). The results show that the returns to scale are relatively high (around 1.6) in smaller offices, but constant for larger offices. We have taken this result into account by using a decomposition of the cost elasticity of commercial or 'front office' activities, via the effect of 'back office' activities. An increase in commercial activity generates greater needs in back-office activities. Since this extra activity cannot be provided by the counter employees in larger offices, it requires dedicated, more expensive resources.

This network cost analysis is currently being updated with a new data set for a network that has changed a great deal since the early 2000s, notably with the transformation of post offices into an Agence Postale Communale (APC) or Relais Poste Commerçant (RPC).

In conclusion, I must say that the work presented above is only a sample of all the econometric work done during these 25 years. A second theme that has given rise to many studies is that of demand, which has been treated using individual or aggregated data. Of course, these 25 years of econometric analysis have only been made possible by La Poste's continued efforts to provide us with databases of great richness.

1/ "Scale Economies and Natural Monopoly in the Postal Delivery: Comparison between Parametric and Non Parametric Specifications" (1997), with M. De Rycke, J.P. Florens and S. Rouzaud, published in Managing Change in Delivery Economics, M.A. Crew and P. Kleindorfer (eds), KUP.

2/ This result was consistent with those obtained in the literature for postal services in other countries, particularly in the United States, for USPS.

3/ "An Analysis of Some Specific Cost Drivers in the Delivery Activity" (2001), with J.-P. Florens and B. Roy, published in Future Directions in Postal Reform, M.A. Crew and P. Kleindorfer (eds), KUP  
4/ "Delivery Costs II: Back to Parametric Models" (2005), with F. Fève, J.-P. Florens and B. Roy published in Regulatory and Economics Changes in the Postal and Delivery Sector, M.A. Crew & P.R. Kleindorfer (eds), KUP

5/ "Nonparametric Frontier Estimation: a Robust Approach" (2002), with J.-P. Florens and L. Simar, published in Journal of Econometrics, vol. 106, n.1, Jan. 2002, p. 1-15

6/ Stochastic Frontier Analysis: stochastic parametric method of estimating an efficiency frontier.

7/ Data Envelopment Analysis: deterministic nonparametric method.

8/ "An Econometric Study of Cost Elasticity in the activities of Post Office Counters" (2001), with P. Duchemin, J.-P. Florens, B. Roy, O. Vialaneix, published in Postal and Delivery Services: Pricing, Productivity, Regulation and Strategy, M.A. Crew and P. Kleindorfer (eds), KUP



## From postal to digital economics

**CLAIRE BORSENERGER**

Head of Theory and Modeling,  
Department of Regulation and Research,  
La Poste



When I joined La Poste's team of economists, the research topics focused on the cost and financing of the universal postal service in the context of the full market opening to competition and were almost exclusively focused on mail activity.

The field of reflection has gradually widened to mix postal economics with digital economics, as evidenced since 2012 by the adjustment of the bi-annual conference co-organized by La Poste and TSE. Until then it had been entitled "Conference on Regulation, Competition and Universal Service in the Postal Sector", before being renamed "Conference on the Economics of the Postal Sector in the Digital World". This eighth edition opened with a session dedicated to media aggregators and search engines.

### In-depth analysis of the e-commerce value chain

Our own work with the Toulouse economists took this "digital" turn. As an example, I would like to mention the work done with Helmuth Cremer, Philippe De Donder and Jean-Marie Lozachmeur on the role of postal operators in the e-commerce value chain, and in particular their pricing strategies vis-à-vis the online retailers to whom they provide a delivery service for goods purchased online up to their final destination. Note that the customers of the delivery operators are the online retailers and not the online consumers – therefore, contrary to a widely held idea, the price paid by online consumers for delivery is set by the online retailer and not by the delivery operator.

While some economists had already become interested in e-commerce<sup>1</sup>, questions about the vertical relations between online sellers and their suppliers of inputs (such as delivery services for goods ordered online) and the latter's pricing strategies had not been thoroughly studied until we started our work in 2013.

But this subject is crucial for a company like La Poste: in the context of the decline of the mail business, the development of e-commerce is unquestionably a growth driver for postal operators. Indeed, a significant part of e-commerce relates to physical goods. Online retailers must therefore find delivery solutions to send physical goods purchased online to the final consumer. Online retailers can handle these "last mile" logistics themselves, but most of the time they use external service providers. Postal operators are "natural" business partners in providing these delivery services, particularly because of their extensive home delivery network. But parcel delivery is an activity full of challenges for several reasons. I will mention two that have been the subject of theoretical developments.

1/ The literature is focused on the drivers of this activity at micro- and macro-economic levels (Javalgi and Ramsey, 2001, Brousseau, 2003), on the issues related to the trust and reputation of online retailers (Cabral and Hortaçsu, 2010), on competition issues between different retail channels (Clay et al., 2002), on the price competitiveness of e-commerce (Brynjolfsson et al., 2003), etc.

### Modeling competition in the parcel delivery market

First, the parcel delivery market is very competitive. Express operators and traditional logisticians (UPS, DHL, TNT, GLS and DPD/GeoPost) have adapted their service offerings (initially focused on B2B services) to meet the expectations of their historical customers who have developed an online B2C activity. New players from the digital and/or sharing economy have made their appearance in this market: attracted by the development prospects of this business, they develop intermediation platforms linking suppliers and seekers of delivery services. They exploit digital technology to develop new economic models at lower cost (the last-mile uberization phenomenon) and offer alternatives to home delivery (pick-up point delivery, automatic lockers, directly in the parked vehicle of the consumer at a specific location, etc.) thus reducing the failure rate related to the absence of the recipient at the time of delivery (and therefore the cost of delivery).

The emergence of these new forms of competition resulted in articles published in 2014 and 2015<sup>2</sup>. We modeled the competitive game between parcel delivery operators with different "technologies" (home delivery and pick-up points) in order to better understand their optimal pricing strategies regarding online retailers. The following year, we introduced a "quality of service" dimension in the competitive game between delivery operators, assuming that it was increasingly expensive to improve the quality of the delivery service, especially since it was a pick-up point delivery<sup>3</sup>. By studying the optimal strategy of delivery operators regarding pricing and quality of service in different market configurations, we came up with some "classic"<sup>4</sup> conclusions but we also obtained less intuitive results. Among other things, our work has shown that regulating the quality of service offered by a home delivery operator competing with a pick-up point delivery operator would reduce collective welfare.

### Power games between economic players

Another difficulty with parcel delivery is the growing market power of some players that dominate the e-commerce market. This position gives them unprecedented bargaining power vis-à-vis their suppliers, and in particular, allows certain online retailers to develop their distribution network and sell their own delivery services to other online retailers. In a fixed-cost economy, where volume discounts are a common pricing practice, the parcel-aggregator role they play has a significant impact on parcel delivery operators' profits.

We modeled this situation by relaxing the assumption of a competitive e-commerce market, made in our previous work, and examined more specifically the impact of the existence of marketplaces on the pricing strategies of the parcel delivery operators and the collective welfare in two articles published in 2016<sup>5</sup>. In particular, in the paper entitled "Pricing of delivery services and the emergence of marketplace platforms", we assumed that the price paid by the marketplace to the parcel operator for the delivery service was the result of a negotiation process between the two players. Using this model, we have proved analytically that the more bargaining power an e-commerce platform has, the greater the discount it will get compared to the public delivery rate. As a result, prices charged to the marketplace tend towards marginal cost, which may lead to a situation where the parcel operator is no longer able to cover its fixed costs. Implicitly, this model appears to show that the market power of a delivery operator cannot be estimated solely by considering its market share: even a monopoly operator may actually have weak market power with respect to the monopsony power of the marketplace.

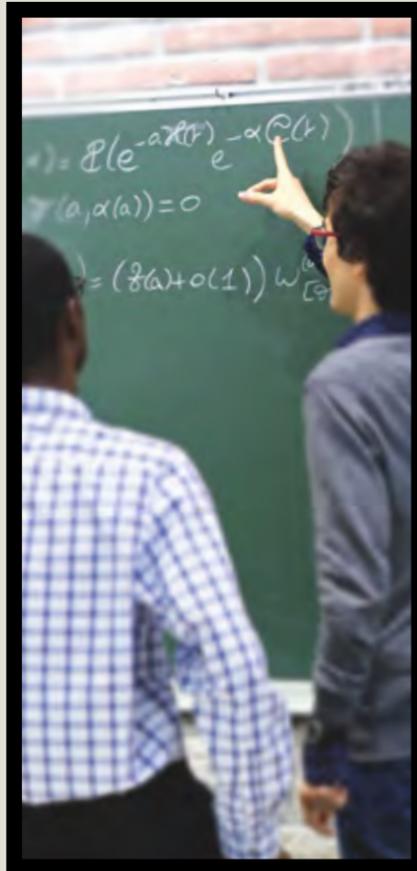
In conclusion, I would emphasize the importance of the theoretical work: it helps to inform the public debate by examining the economic foundations of markets that are in the midst of restructuring. In this case, work on the relationship between parcel delivery operators and online retailers provides a number of insights into the market structure and optimal strategies, and can be a very useful tool for guiding decisions taken by operators as well as public authorities and regulators.

2/ Borsenberger Claire, Helmuth Cremer, Philippe De Donder, Denis Joram and Sébastien Lécou (2014), "Pricing of delivery services in the e-commerce sector", in M.A. Crew and T.J. Brennan eds, *The Role of the Postal and Delivery Sector in a Digital Age*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp. 75–92 ; Borsenberger Claire, Helmuth Cremer, Philippe De Donder and Denis Joram (2015), "Quality and Pricing of Delivery Services in the E-commerce Sector", in M.A. Crew and T.J. Brennan (eds), *Postal and Delivery Innovation in the Digital Economy*, Springer International Publishing, 77-90.

3/ This hypothesis reflects the capacity constraints faced by pick-up points and the impossibility of extending the network of pick-up points indefinitely.

4/ For example, we obtain the usual pricing rule of operators seeking to maximize their profit: the lower the price elasticity of demand, the higher the equilibrium price. We also show that the entry of an alternative technology operator into an unregulated (previously monopoly) market is socially desirable. On the other hand, the opening of a regulated market (on which the operator is forced to balance its budget) to the competition reduces the collective well-being and the surplus of the consumers.

5/ Borsenberger Claire, Helmuth Cremer, Philippe De Donder and Denis Joram (2016a), "Differentiated Pricing of Delivery Services in the e-Commerce Sector", in M.A. Crew and T.J. Brennan (eds), *The Future of the Postal Sector in a Digital World*, Springer International Publishing, 191-212 ; Borsenberger Claire, Helmuth Cremer, Denis Joram and Jean-Marie Lozachmeur (2016b), "Pricing of delivery services and the emergence of marketplace platforms", IDEI Working Paper n°865, August.



Challenges  
ahead



## Challenges ahead

### The future of postal services in Europe



**JEAN-PAUL FORCEVILLE**

*Director of Regulation, Institutional and European Affairs, La Poste*

Is it necessary to recall that the postal industry is in transformation? Confronted with major challenges such as market liberalization and the digitization of correspondence, postal operators are strengthening their positions in the sectors in which they have experience (parcel delivery, financial services) and investing in new sectors (personal services, digital identity certification, secure storage of documents, opening of the network to other public services, etc.). Naturally, these (r)evolutions also call for (r)evolutions of the regulatory framework.

### Mail delivery and local post offices, victims of the digital revolution

The spread of information and communication technologies (ICT) is changing the face of postal services around the world. The postal service is no longer seen as the primary means of connecting people and businesses wherever they are. There are several reasons for this.

In the first place, people have become accustomed in most countries to communicate by other means: telephone (mobile and smart), SMS, email, Skype or social media. The use of physical mail should logically continue to decline, as the ranks of generations Y (the "digital natives", born between 1980 and 1994), Z (born between 1995 and 2009) and now alpha (born since 2010) grow within the population.

Second, the economic context pushes large mail senders (including governments) to reduce their consumption of postal services, often hiding behind a pro-environment alibi. Indeed, the internet is a cheaper, faster and sometimes better targeted communication channel, thanks to the exploitation of personal data left voluntarily, or not, by internet users when browsing the web. As a result, volumes of mail, be it transactional (invoices, account statements) or for advertising, are inexorably decreasing.

The use of digital tools also has an impact on visits to physical postal contact points. Nowadays, almost all the traditional products or services provided in post offices are available online. Customers can purchase stamps and frank their shipments online, including (electronically) registered items now officially recognized by governments. Financial transactions previously carried out at the post office counter are now also, for the most part, available online (account consultation, loan subscription, etc.) and automated teller machines allow you to withdraw cash and deposit checks and cash. As a result, visits to post offices are also declining inexorably.

In an industry with high fixed costs (whether for mail delivery or maintaining an extensive network of physical contact points), these downturns are disastrous for the economic profitability of postal operators especially as they need resources to diversify.

### Digital opportunities for postal operators

The opportunities and challenges posed by the growth of e-commerce for postal operators has been widely discussed in the previous pages, so I will limit my remarks to the digital transformation of postal services.

Around the world, postal operators are developing new services based on digital technology such as online postage solutions, real-time tracking of shipments, providing a secure digital safe where administrative documents can be stored, digital-identity authentication services, etc.

Digital technology is also a way to improve our business processes. For example, thanks to geolocation and predictive analysis, postal operators can optimize the organization of delivery rounds; smart mailboxes can be installed; postal workers can be equipped with digital terminals that allow access to all the information needed to advise and serve the users.

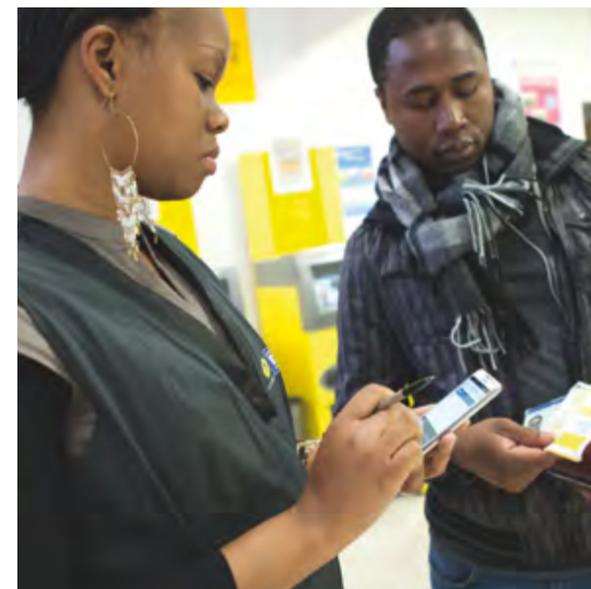
### Digitization calls for reflection on postal regulation

The challenges facing postal operators are multiple and complex. Faced with the diversity of situations, each postal operator seeks to reinvent itself by exploiting its assets. But postal operators are not the only masters of their destiny. Regulators and governments possess instruments that can contribute, or not, to the success of the postal sector's transformation.

In some respects, the current European regulatory framework, established 25 years ago, limits postal operators' room for maneuver and runs counter to its objective of promoting economic efficiency. To cope with the decline of traditional postal activity, operators need flexibility to adapt their offers and their means of production.

In addition, it is imperative to question the societal value of the universal postal service and the various SGEI entrusted to postal operators well before the advent of digital technology. In this respect, the coming years promise to be plentiful: the European Commission has planned to reopen the postal directive debates in 2019 and at national level, La Poste and the French government have agreed to issue a mid-term progress report on the Groupe La Poste's SGEI under the 2018-2022 Enterprise Contract.

In the meantime, researchers and experts from the postal sector will be mobilized to study the needs of society and redefine the regulatory framework not only of the postal sector but of the digital economy in which postal operators are now evolving. To carry out this exercise, we must think globally, not just postally!





## Challenges ahead

**“Neither snow nor rain nor heat nor gloom of night,”\* but maybe less than a gigabyte: The digital revolution and the future of regulation in the postal sector**

**HELMUTH CREMER**  
TSE researcher



The postal sector in Europe has seen a Long March towards liberalization during the last 25 years. The underlying idea has been to replace (ex ante) regulation by competition, monitored by competition authorities. These reforms have concentrated on the mail segment; parcel delivery has traditionally been open to competition<sup>1</sup>.

The policy changes have no doubt contributed to reshaping the sector, transforming somewhat dusty postal administrations into modern, customer-oriented and innovative delivery operators. However, the digital revolution is having an even more significant impact. Because of electronic substitution, mail volumes have been declining dramatically. Entry has been limited and postal competition, if any, is mostly confined to some segments. Future entry does not appear to be the main concern of postal operators. Instead, competition by electronic substitution appears to threaten their financial viability.

Meanwhile, the parcel segment has benefited from a significant growth in demand, mainly because of the development of e-commerce. This has been generating extra revenues which compensate, at least in part, for the revenue losses in the letter segment. However, parcel delivery is a very competitive activity and the rapidly evolving e-commerce market brings about new challenges.

### Rationales for regulation

How if at all should the postal sector be regulated in this reshaped environment? In the past, regulation was mostly applied to growing industry (telecoms, energy). One of its objectives was to enhance the growth of the network. This was the main argument for rate-of-return regulation which guarantees investors a “fair” rate of return to foster investments in the sector.

Another classical argument applies to the case of natural monopoly. When there are increasing returns to scale due to network costs for instance it is efficient to have a single operator. But a private monopoly sets prices too high (output too low) which may lead to inefficient exclusion. In that context a regulated monopoly (private or public) achieves the efficient market structure, while

\* Unofficial USPS motto

<sup>1</sup> / I focus myself on the current European regulatory framework. The United States has adopted a different model, maintaining until now a regulated monopoly on the delivery of the “last mile”. But the general situation of the sector is similar to that prevailing in Europe and my main arguments apply to it as well.



avoiding the inefficiency of a profit maximizing monopoly. This may sound like having the cake and eating it too, and indeed like everything which “sounds too good to be true”, it does have a catch. Regulation brings about its own problems, including potentially insufficient incentives for cost minimization and for innovation. Consequently, some measure of competition may be desirable, even when it implies duplication of fixed costs. This market opening has typically been associated with a specific regulation of the incumbent operator to limit its market power.

The enforcement of the universal service obligation (USO) provides an additional reason for regulation. Originally and particularly in telecommunication the USO was often justified by network externalities. But in the postal sector regional planning and equity arguments (protection of high-cost customers) appear to be more relevant. Anyway, the idea that the service provided by network industries should be available at affordable rates to all households, irrespective of their location is widely accepted.

### Letters and e-substitution

This segment includes traditional single-piece letters and, more significantly, industrial mail which may be transactional (such as bank statements) or consist of direct mail (addressed advertisements).

The natural monopoly argument is becoming less and less relevant because of e-substitution. Postal services providers, even when they are the sole operator in the market, have very limited market power. Competition intensity is sufficiently large to ensure “pricing discipline”, exerting pressure to decrease costs and providing incentives for quality improvements. The main impact of regulatory policies, particularly when they restrict the operator’s pricing flexibility, is that they are likely to accelerate the decrease in volumes and revenues.

Turning to universal service, the current notion of accessibility should probably be replaced by a USO pertaining to communications (paper or electronic). There is then no need for a specific postal USO as currently defined. The transition will of course take time. The digital divide continues to exist and not all customers are ready to give up on paper communications.

To sum up, the need for regulation is declining in a rather drastic way. While a total and immediate deregulation may hurt some customer groups, phasing out regulation at a speed depending on the speed of demand decline appears to be the appropriate policy. Some rigid rules, like the requirement to deliver five or six days a week, may be dropped right away. For the rest, sufficiently flexible policies may persist during transition. However, more rigid policies, like price caps with multiple sub-baskets, may undermine the ability of the operator to adapt to a rapidly evolving market environment.

### Parcel delivery

As mail volumes continue to decline, parcel delivery becomes an increasingly important market for postal operators. This market is expanding mainly because of the development of e-commerce. At the same time the e-commerce sector is continuously evolving; right now it has certainly not a steady state and it is hard to predict what this steady state will look like. The sector is already subject to significant concentration trends and this is amplified by the development of marketplaces. A retailer may not just sell its own products; it may also provide a marketplace for other sellers offering a variety of services including delivery. From a parcel delivery operator’s perspective, marketplaces create a “secondary” delivery market which undermines its ability to differentiate prices. Another trend is the looming vertical integration with major retailers taking control of delivery operators or developing their own delivery network, particularly in dense areas. Currently, major retailers already bypass international shipping by injecting parcels directly into the destination country’s operator’s network.

Parcel delivery has traditionally been open to competition. Nevertheless, the incumbent postal operator often has a large market share, as it does in France. While parcel delivery is often separate from mail delivery in urban areas, there are economies of scope between the two activities. Not surprisingly this large market share raises suspicions of market power and dominant positions. However, to assess the need for regulation market shares in parcel delivery have to be balanced against the monopsony power of the major e-retailers which is strengthened by the potential (and already developing) option of bypassing traditional delivery operators. The big retailers have a sufficiently large bargaining power, and there is no need to protect them by regulation. Absent of competition, this might go at the expense of single piece customers or smaller retailers, but these can use a delivery operator amongst the competitors of the incumbent postal operator. To sum up, there does not appear to be a compelling argument for regulation.

The EU Commission has recently launched a proposal that focuses on parcel delivery services and particularly their pricing as an alleged major impediment for the development of cross-border e-commerce. Consequently, a variety of regulatory measures is envisioned. The rationales for these are not clear. While it is true that cross-border exchanges have been growing at a lower rate than domestic e-commerce, this can be explained by a variety of factors including language and cultural barriers and bureaucratic obstacles, in particular the complexity of VAT



regimes. All in all, the envisioned policies appear to be an indirect way to “regulate” e-commerce by offering protection to smaller retailers. It is undeniable that the e-commerce sector is increasingly concentrated and smaller retailers may have no choice but to join one of the platforms at conditions over which they have little or no control. But this problem cannot be addressed indirectly by regulating parcel delivery operators.

### Peering through the gloom

According to the US Postal Service motto, the gloom of the night does not “stay these couriers from the swift completion of their appointed rounds”. However, the gloomy trend of demand may well bring down, if not the couriers, but instead the appointed rounds. Electronic substitution is steadily eroding letter volumes and the usual arguments for regulation no longer apply. Some groups (like the elderly) may include a significant share of captive customers. Consequently, the residual regulation that exists, and which concerns mostly the pricing of USO products should not be eliminated overnight. But in the long run there will be little left to regulate and in the meantime an excess of rigid regulation can only accelerate the decay of this market segment.

The parcel segment, on the other hand, is growing, mainly because of the development of e-commerce. This generates extra revenues for postal operators which compensate in part for the losses in the letter segment. However, even in that segment not everything is as rosy as it looks at first. E-commerce is increasingly concentrated, and this phenomenon is exacerbated by the development of marketplace platforms. Currently, the bargaining power of the delivery operators facing major e-retailers is small and the increasing threat (and reality) of bypass is not going to improve this. The monopsony power of the retailers, along with bypass and other competition in delivery are enough of a discipline device to make intrusive regulation superfluous. If the objective is to avoid excess concentration in e-commerce, to develop cross-border exchanges and to protect small retailers, this should be done via policies acting directly in the retail sector.

#### FIND OUT MORE

The above observations draw on joint papers published by researchers from TSE and La Poste. These include papers on the universal service obligation, the appropriate design of price caps (global vs. multiple baskets), the welfare impact of nonlinear pricing, and more recently on the relationship between delivery operators and online retailers. All the original papers are available at: [www.idei.fr](http://www.idei.fr).



## Balancing the rules of competition in the new ecosystem



**NICOLAS ROUTIER**  
Vice-President of Institutional Strategy and Regulatory Affairs, La Poste

As you can see from the previous contributions, Groupe La Poste sees its historical model challenged by changes in its economic, regulatory and technological environment: the digital revolution is impacting mail volumes and the number of visitors to post offices; parcel and express delivery competition is intensifying and reducing margins; La Banque Postale is evolving in a new banking landscape marked by more demanding prudential regulation, historically low interest rates and the rapid development of online banks.

### “Conquering the future”: the watchword of the “La Poste 2020” strategic plan

This is why the company has been committed, for several years now, to the conquest of new domains that remain in line with its values, mobilize its know-how and reflect its primary ambition: to become the big company of local human services.

Among these booming new areas, I will mention: e-commerce; urban logistics; assistance to elderly (silver economy), fragile or isolated people; mobile phone services; secure digital exchanges; Internet of Things and services related to connected housing; social and collaborative economy; energy transition; and e-health.

A large part of these “new territories” is located in what is commonly called the digital economy, now dominated by a few major players: Google, Amazon, Facebook, Apple, Microsoft (GAFAM) or Netflix, Airbnb, Tesla, Uber (NATU).<sup>1</sup>

### GAFAM domination partly justified by economic rationales and more “tendentious” strategies ...

This phenomenon of the concentration of internet-based operators can be rationally explained by the combination of demand-side network effects and supply-side economies of scale that create a “snowball” effect once the service has managed to attract a critical mass of users. This market dynamic naturally tends to strengthen the strong and weaken the weak.

Companies which have been able to gain the ascendancy in this race for size, in order to exploit network and scale effects, have done so partly on merit. The success of GAFAM is largely based on the technical excellence of their services, their attentive listening to consumer aspirations, a spirit of conquest, ingenuity and unparalleled responsiveness.

1/ Baidu, Alibaba, Tencent and Xiaomi are the local “GAFAM” in Asia

However, these firms have also implemented more aggressive strategies. Holders of significant cash reserves, accumulated thanks to their growing sales but also because of tax optimization mechanisms, the GAFAs multiply acquisitions. They spend billions of dollars to buy potential competitors, thereby killing potential competition and vertically integrating the value chain of their original industry.

In the end, GAFAs control key infrastructures of the digital economy that new entrants can hardly replicate. This not only gives them a competitive advantage over their rivals, but also strong bargaining power vis-à-vis their suppliers and their customers. Issues relating to the protection of personal data are also controversial.

Tax fairness is no longer guaranteed, and this calls for the definition of new concepts to better define the nature, the bases and the location of taxable activities... But it is the questions raised by some of their practices that I wish to evoke here: price discrimination, bundling, exploitative abuse, etc., legitimately raise competition concerns and are the subject of investigations by the competition authorities.

## Building an economic theory

Currently, there are two opposing schools of thought among economists regarding the real market power of these platforms and the need for regulation.

For some, online markets are moving towards natural monopolies and platforms will become a form of public good or essential infrastructure. This situation calls for regulation of the dominant position. In particular, the obligation for dominant players to provide equitable access to their platforms could be beneficial to the community. In this perspective, the issue arises of dismantling already well-established operators who have integrated several segments of the value chain, such as the break-up of AT&T in the early 1980s.

On the other hand, some consider that the markets in which the GAFAs operate are contestable. While there are factors that effectively favor a greater concentration of markets online rather than offline, many factors might push in the opposite direction: the "multi-homing" nature of consumers and service providers; the heterogeneity of demand; and the intensity of innovation and competition. In this context, some believe that ex ante regulation that is too rigid could have counterproductive effects and reduce collective welfare.

In short, opinions diverge. I have no doubt that TSE economists, at the forefront of multi-sided markets research, will be able to shed light on these various issues in the coming years, to balance the rules of the competitive game and make the most of this new ecosystem.

The stakes are high; because it is by fully understanding the operating mechanisms of these platforms and their social and economic consequences that public authorities and regulators can take appropriate measures to guarantee not only efficiency, but also fairness in competition.

It is normal and legitimate that these debates take time. However, we should allow the practitioner to stress the urgency for defining these new concepts and especially to implement them, because the impact of the concentrations and mechanisms of domination at work have important, immediate and often irreversible consequences for market players.

## Future research

*"Today, many of the issues facing La Poste will require further advances in economics at the highest level. Facing the decline in mail volumes, the emergence of a digital economy, and "uberized", as yet unregulated forms of competition taking on traditional physical activities, resilience is essential to ensure the universality of supply and social cohesion.*

*Through its subsidiary La Banque Postale, Groupe La Poste is of course now fully involved in banking and financial regulation in France, so these are possible new subjects for the partnership. So many issues that suggest that the partnership between La Poste and TSE will continue to be successful in the years to come."*

**Bernard Roy**

*"The questions around the universal postal service that mobilized economists in the early 2000s could return to the fore, given the changing needs of users and the growing difficulties faced by European postal operators in charge of universal service to maintain their quality of service and/or profitability due to the drastic drop in postal volumes. Discussions on a fourth postal directive could open in 2019 at European level.*

*As Philippe Wahl, CEO of Groupe La Poste, reminded us, impact studies of the measures that could be taken in this context should be the focus of discussions to properly define what the universal postal service should be in the digital age. Indeed, the digital revolution has ensured that the world today is nothing like the world that prevailed in the early 1990s."*

**Claire Borsenberger**



*Publication director: Sébastien Pouget*

*Managing and production editor: Priyanka Talim*

*Editorial contributions: James Nash*

*Graphic design: Olivier Colombe*

*Photo credits: Groupe La Poste, I-Stock, Studio Tchiz*

Thanks to Claire Borsenberger for her help with editing and production.





**Priyanka TALIM**

*Project Manager - Partnership Research*  
priyanka.talim@tse-fr.eu

---

**www.tse-fr.eu** -  **@TSEinfo**

21 Allée de Brienne, F-31015 Toulouse Cedex 6  
Tel: +33 (0) 561 128 589