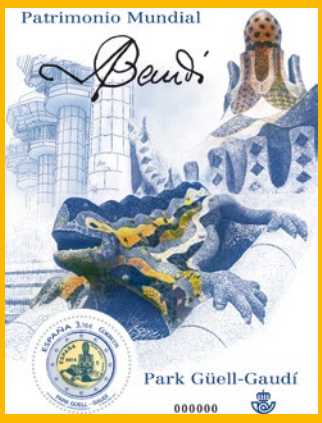
Topics in Regulatory Economics and Policy



Pier Luigi Parcu
Timothy Brennan
Victor Glass *Editors*

The Contribution of the Postal and Delivery Sector

Between E-Commerce and E-Substitution

Springer

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The Contribution of the Postal and Delivery Sector

Between E-Commerce and E-Substitution

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Preface and Acknowledgments

This book is a result of the 25th Conference on Postal and Delivery Economics, which was held on May 24–27, 2017, in Barcelona, Spain. The conference was a joint effort of the Florence School of Regulation – Communications and Media (FSR C&M) at the European University Institute (EUI) and the Center for Research in Regulated Industries (CRRI) at the Rutgers Business School.

The conference and book are dedicated to Prof. Michael A. Crew. This 25th conference was the first held without him since he and the late Paul Kleindorfer organized the first conference, held in July 1990 in Rugby, England. Since then, hundreds of participants have come together to discuss and share research on evolving trends in postal and delivery economics. The community of economics, business, law, and policy researchers studying the postal sector that the conferences have fostered in the last three decades would not exist without Michael's effort, intellect, humor, and indomitable spirit. That community will be forever in his debt.

The Conferences on Postal and Delivery Economics that Michael created are a testament to the evolution in the postal and delivery sector over the last 25 years: from high letter volumes to a progressive increase of parcel delivery, from the start of the liberalization process to the disruptive impact of digitalization and the Internet, and from sector-specific activities to new business differentiation. At the same time, the universal service obligation was and still is a central element of the regulatory, policy, and economic debate.

The conference was made possible by the contribution of generous supporters. We would like to thank them not only for financial support but also for the helpful advice they provided in their role on the organizing committee as well as, along with others, intellectual contributions and encouragement: Mohammad Adra, Bruno Basalisco, Geoff Bickerton, Claire Borsenberger, Stephen Brogan, Fabio Camerano, Isabelle Carslake, Margaret Cigno, Peter Dunn, Cristina Falcone, Colm Farrelly, Charles Fattore, Beatriz Galván Santiago, Stefano Gori, Juan Gradolph, Annegret Groebel, Robert Hammond, John Hearn, Paul Hodgson, Adam Houck, George Houpis, Christian Jaag, Denis Joram, Keith Kellison, Caroline Longman, Leonardo Mautino, Hendrik Okholm, Ted Pearsall, Paola Piscioneri, Michela Raco,

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We would like to thank our distinguished dinner speaker, the President of CNMC (the Spanish National Regulatory Authority), José María Marín Quemada.

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Academic Hubs and the Intellectual Infrastructure of Economic Regulation

William E. Kovacic

1 Introduction

Michael Crew was one of the most important academics in the past half-century of economic regulation. He wrote books and articles that shaped the way we think about the substance, process, and institutions of regulation. In the classroom, he provided powerful analytical tools and valuable practical guidance to thousands upon thousands of students. He was a much-demanded lecturer to audiences around the globe. He gave astute advice to public bodies and private firms as a consultant. He generously provided invaluable support and guidance to junior academics. In all of these endeavors, he displayed true mastery of the technical details and broad policy considerations of regulation, and he revealed an unsurpassed capacity to identify important connections across the individual domains of regulatory policy.

In no area was Michael's influence more profound than in postal and delivery services. In his own work and in collaboration with other researchers (most notably, his long-time academic colleague and dear friend, Paul Kleindorfer), Michael helped set essential foundations for what we know as postal and delivery economics (Brennan 2017). He created and convened the world's most important annual conference on postal and delivery economics, taking a neglected area of policymaking and providing a forum that linked academics, business managers, government officials, and practitioners (Parcu and Comandini 2017). Starting with

The views expressed here are the author's alone.

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a small gathering of specialists at Rugby in the United Kingdom in 1992, Michael constructed what became a must-attend annual event. The proceedings of these programs provided the basis for edited volumes that contain some of the most significant papers on postal and delivery services. Michael was not alone in giving due attention to a crucial element of the information services economy, but his role in developing postal and delivery services as a focus of intellectual inquiry, scholarship, and policy discourse was unmatched.

The central vehicle for Michael's work in regulatory policy was the Center for Research in Regulatory Industries (CRRI) at the Rutgers University Graduate School of Management (GSM) in Newark, New Jersey.[1] Michael founded CRRI in the early 1980s, and it served as the chief home for varied programs concerning postal services and other domains of regulatory policy. CRRI became an exemplar of the academic hub—a platform that helps create the intellectual infrastructure of regulatory policy and transmits its insights to the stakeholders in the field. CRRI supported the teaching of Michael and his colleagues at GSM, housed the Journal of Regulatory Economics (which Michael formed in the late 1980s), and convened a wide variety of conferences, seminars, and workshops. Michael's conscious aim in designing these events was to integrate theory with practice—to join up conceptual insights from the academy and inject them into current debates about policy and to alter the course of policy itself.

This paper seeks to do two things. First, it celebrates Michael Crew's remarkable role in building an academic hub that greatly enriched our understanding of postal and delivery economics and the field of economic regulation generally. The motivation for the tribute is deeply personal. In all that I have done as an academic and public official since meeting Michael 30 years ago, every day I have used something I learned from Michael and the academic hub he created. I am most grateful.

The paper's second aim is to highlight the importance of academic hubs as elements of the regulatory ecosystem that supports the development of sensible regulatory policy. CRRI exemplifies the vital support that an academic hub gives to a system of economic regulation. By generating and publishing research, by teaching students who will enter field of regulation, and by making practitioners and regulators aware of relevant theoretical and empirical developments, CRRI has helped build the base of knowledge on which good regulation depends. In convening conferences, seminars, and workshops, CRRI provided settings in which all participants in the policymaking and enforcement process—academics, practitioners, and regulators—could build common understandings about developments in industry and in government and, over time, form a consensus about the design and implementation of public policy.

By appreciating how academic hubs can improve the quality of regulation, we can see how regulatory systems can nurture and engage these institutions to their

[1]This institution now is known as the Rutgers Business School. This paper refers to the Graduate School of Management, or GSM, as this was the name of the school for most of Michael Crew's tenure at Rutgers.

great benefit. Seen this way, academic hubs are striking examples of what Allan Fels, a leading scholar in the fields of economic regulation and public administration and the former chair of the Australian Competition and Consumer Commission, has called "co-producers"—institutions external to the regulatory agency on which regulators can draw to increase their own capability and achieve better regulatory results. Academic hubs should be viewed as vital—perhaps, indispensable—ingredients of the intellectual infrastructure over which good regulatory policy travels.

The paper approaches the topic in two parts. It begins by describing several major problems associated with the development and transmission of knowledge that a regulatory system must overcome to function effectively. This section also suggests how academic hubs can help a regulatory system to overcome otherwise crippling knowledge problems. The second part concludes by suggesting how the existing role of academic hubs might be expanded to play this supporting role more fully. The paper draws heavily upon illustrations from the CRRI's work in postal and delivery economics, but its observations apply more broadly to other systems of economic regulation.

2 Knowledge Requirements and the Contribution of Academic Hubs to Regulatory Policy R&D

Knowledge is a crucial input into the development of good regulatory programs. Successful regulatory regimes require regular investments—by regulatory bodies and by collateral external groups—in regulatory policy research and development (R&D) (Kovacic 2005). Just as many commercial enterprises thrive by reason of R&D investments, so too do regulatory agencies require outlays that build knowledge.

Five conditions relating to the accumulation, assimilation, and transmission of knowledge provide valuable foundations for effective regulation. Each of these is a potential focal point for regulatory R&D. These conditions and the obstacles to their creation are described below.

2.1 Sound Comprehension of Commercial Developments

The regulator stands very much in the position of a physician in the treatment of patents. A vital step in medical practice is the diagnosis of observed phenomena. Good medical practice begins with a careful assessment of the patient's present condition and medical history. This assessment enables the physician to make an accurate diagnosis, which in turn informs the decision of whether and how to intervene.

To approach any assigned task, the regulator must first ask itself if it fully understands the industry it oversees. Does it know how the industry has evolved to its current state, and does it correctly foresee where the sector is going? Does the regulator have access to data that documents trends in performance and supplies an informative view of how the sector will progress in the future?

A central assumption supporting the creation of regulatory bodies is that they would provide a superior means to assemble and apply the expertise suggested above. In theory, a skillful regulator recruits and retains knowledgeable specialists, forms teams which become proficient in addressing specific commercial phenomena, and applies tools that permit the agency to understand how the sector is changing.

Several problems confront a regulator as it seeks to create and sustain a needed base of knowledge about sectors and firms subject to its jurisdiction. Because governments usually resist paying market rates for top talent, it can be very difficult to recruit high quality analysts and retain their skills. Rapid technological change and other forms of intense commercial dynamism place continuous and extreme pressure on the agency's knowledge base. For example, the future configuration of postal and delivery services is a function of rapid change regarding the expansion of electronic commerce, the electronic collection and transmission of data (e.g., the introduction, since the 1980s of the fax machine and email) and in methods for delivering physical objects (e.g., drones). The abrupt displacement of existing business models can simply overwhelm existing regulatory controls, unless the regulator is able to learn and adapt quickly.

The knowledge problem becomes more acute as the range of regulatory tasks or sectors overseen increases (Hyman and Kovacic 2014). Legislators often assign regulators more than one regulatory task—for example, by giving a regulator a portfolio that includes responsibility for competition issues, consumer protection matters, and data protection. Agencies which have succeeded in overseeing a single commercial sector may experience extensions of authority that bring more industries within their purview. As the number of sectors to be overseen or the number of substantive regulatory duties grows, so too does the need to build an even broader base of knowledge.

The discussion so far has spoken in terms of building knowledge through the agency's own recruitment. Of course, an agency may contract externally to obtain the requisite knowledge. It is common practice for regulators to hire consultants to guide the analysis of specific sectors or particular forms of behavior. However, recourse to outsourcing ultimately is constrained by budget limits, which legislative appropriators rarely set in a generous fashion. Legislators usually impose regulatory duties that outrun the ability of the agency, whatever mix of internal expertise development or contracting out it uses, to fulfill its commitments. As discussed more fully below, academic hubs can help fill this gap by performing functions—such as research that studies developments in dynamic sectors—that supplement what the agency can do by itself.

2.2 *Improving Theory and Joining it to Practice*

Improvements in knowledge relevant to economic regulation often take the form of enhancements to the theoretical state of the art. For example, the identification of price caps as alternatives to traditional rate of return regulation has reshaped policy in a number of regulated sectors. A well-performing regulatory system will engage in a continuous effort to improve theory and use such improvements to increase the quality of regulation. The latter step requires mechanisms that translate the conceptual insights of theoretical refinements into practical operational techniques.

A regulatory system can use various approaches to the twin tasks of advancing theory and joining it successfully to regulatory practice. The vertical integration or disaggregation of these tasks varies considerably across agencies. Virtually every economic regulator has an internal unit assigned to promote improvements in theory and to facilitate applications to practice. In its most austere manifestation, this takes the form of a policy office that conducts research on behalf of the entire institution and works with operating units to incorporate theoretical insights into regulatory programs. A smaller office, however, is unlikely to do much theoretical work of its own and is likely to look to outsiders for ideas to be taken on board.

Other agencies have more complete forms of integration. The US Federal Trade Commission (FTC), for example, has a Bureau of Economics with roughly 70 economists with doctorates in the field. The bureau conducts theoretical and applied work. Several FTC policy offices provide a means for distributing this work into the routine handling of cases and rules. The actual realization of the possibilities for integration of theory into practice presented by this model depends heavily on how strongly the agency's leadership—notably, the FTC chair—presses both the Bureau of Economics and the FTC's main law enforcement units (the Bureau of Consumer Protection and the Bureau of Competition) to cooperate in developing a conceptual research program that is relevant to enforcement practice and to encourage case handlers to embrace what is learned in the agency's R&D shops.

Academic hubs in universities can facilitate improvements in the advancement of theory and the integration of theory into practice in at least two ways. One is to serve as a major source for theoretical research. Compared to most regulatory authorities, an academic department in economics will have a superior ability to do theoretical work. The second is to develop mechanisms for converting theoretical insights into practice. This requires a willingness on the part of academic researchers to devote some of their time to working with regulators and other members of the regulatory community to develop applications for their work. Theorists do not automatically regard this as a good use of their time. One function, emblematic of the work of CRRI in postal and delivery services, is to convene events in which economists describe the implications of theoretical advances to practitioners and regulators and suggest practical applications of these insights.

2.3 Evaluating Processes and Outcomes

Economic regulation, to a major extent, is inherently experimental. When legislators enact regulatory commands, and when regulatory agencies implementing them, they often are performing experiments. Is this the right approach to correcting a specific market failure? Will this regulatory technique improve economic performance and societal welfare?. As experience with a specific legal command or implementation method increases, the uncertainty surrounding the effects of such measures ought to decline. Yet, even the application of much-tried and well-tested regulatory methods in highly dynamic industry environments can involve significant uncertainty: Is a method that has served the regulatory process in the past well-suited for a quickly evolving novel commercial environment?

In science, evaluation routinely follows experimentation. How did the rule or the case affect economic performance? How closely did actual experience match the expectations that accompanied the experiment? Were prior assumptions about the responses of consumers and business operators correct? The development of a sound regulatory program over time would seem to dictate that regulators follow a cycle of experimentation, evaluation, and refinement.

In practice, regulators might be reluctant to do engage in an optimal level of evaluation. Because evaluation sometimes yields the conclusion that a regulatory initiative had no effect or, worse, retarded economic performance or other objectives, there might be an institutional inclination to forego ex post assessments in favor of periodic declarations that the program is working well. Expenditures on evaluation as one species of policy R&D also might be seen as a luxury the agency cannot afford amid pressures to deliver the next case or complete the next rule. The inclination to favor expenditures for new cases and rules might be accentuated by the impulse that some agency leaders feel to generate a maximum number of visible events for which they can claim credit and to minimize disclosure of past mistakes. More than this there is the risk to discover mistakes and the political and mediatic cost to render public these type of discoveries. Measured by this test, allocating resources to new cases and rules may be more appealing that making investments in ex post assessments. Finally, the methodological challenges in doing reliable ex post analysis may seem daunting to regulators, especially more thinly resourced bodies.

Academic hubs can help a regulatory system overcome some of these difficulties. Their research capabilities can provide means for evaluation that some agencies believe to be beyond their reach. In addition, though an agency's self-assessment can be valuable, evaluation by an academic hub may increase confidence in its findings by bringing an outside body to the task. One can envision cooperative programs in which agencies open their doors to academic researchers, provide access to agency records, and allow the publication of the researchers' studies, subject to restrictions on the disclosure of confidential business data.

2.4 Mastering the "Regulatory Craft"

The discussion above has discussed knowledge mainly in terms of the understanding of commercial developments and the development and application of ideas that can be used to determine the substance of economic regulation. This knowledge mainly addresses the question of what the substance of regulation should be. Beyond the question of *what* regulatory systems should do, there is the distinct, significant issue of *how* they should do it. To be effective, a regulatory system must solve the often-vexing problem of policy implementation—to cover the distance between the conception of the policy idea and its successful realization in practice (Allison 1971).

There is a substantial, growing body of knowledge on how agencies can master what Malcolm Sparrow (2011) has called "the regulatory craft." One set of issues involves the design and organization of the regulatory institution itself (Kovacic and Hyman 2012; Kovacic and Lopez-Galdos 2016). Should the institution be governed by a board or a single administrator? How many regulatory functions should an agency perform, and for which sectors? Should the agency's economists be consolidated within a single office, or should they reside within operating units responsible for developing rules and cases? Where should quality control functions be located within the agency, and who should conduct them? Should the regulator be overseen by a specialist tribunal, or by courts of general jurisdiction? By what internal process should an agency set priorities and select projects to achieve them?

An agency can take a number of steps on its own to improve its knowledge about these matters of design, organization, and operations. It can use its evaluation program to measure operational efficiency and use public consultations with external constituencies to identify areas for process improvement. It can benchmark itself with other systems to assess the wisdom of specific approaches and identify superior practices. Diversity across jurisdictions and the accumulation of experience over a substantial number of years affords a useful basis for considering alternatives to a jurisdiction's existing regime.

Here, as well, academic hubs can shed valuable light on a regulatory system's decisions about the regulatory craft. Some academic hubs—such as the Australia and New Zealand School of Government, headquartered at the University of Melbourne—have built educational programs that instruct public officials from the two countries on agency management. Others have created research projects that explore trends in agency design and organization and explore links between specific agency configurations and regulatory outcomes. Another set of universities, in addition to these activities, hosts academic journals dedicated to questions of policy implementation. Nearly all these academic institutions run conferences, workshops, and seminars on implementation topics for practitioners and public officials.

2.5 Understanding Policy Choices in Context

Part of an agency's knowledge consists of its understanding of the larger context in which it operates. A successful agency understands its political environment and uses this understanding to build political support for its programs and to appreciate how changing political conditions could affect its programs.

An agency's proficiency can benefit significantly from a deeper knowledge of history (Kovacic 2007). Successful public institutions progress by learning over time—using past experience as a way to design current initiatives. Ex post evaluation, described above, is one method of learning from experience. The historical perspective suggested here goes beyond this to develop an awareness of the forces that brought the regulatory regime into being, and what influences tend to improve, or detract from its performance. The broader historical perspective enables the agency to understand what types of institution-building investments, carried out over a long period of time, improve program development and delivery. A number of academic hubs run research programs and related activities that offer useful resources to regulators seeking to improve their political awareness and historical acumen.

2.6 Building Common Awareness and Policy Consensus

An important step in regulatory policy improvements is the development of mechanisms to build consensus on the appropriate way forward. This can be difficult to achieve where different participants in the regulatory process hold vastly different views about what should be done. The challenge is to create a setting in which parties open their minds to other ways of thinking and build personal relationships that enhance trust and understanding.

To some extent, regulators can perform this function by serving as "conveners" of events that bring different groups together for discussions (Kovacic 2015). Academic hubs, however, have an advantage in performing the convener function, as regulators might be viewed as a less neutral organizer and more prone, if only unconsciously, to imbue an agenda with its own preferences. An important feature of the CRRI postal conferences since the early 1990s has been their capacity to create a community of interest among disparate elements of the community of those interested in postal services regulation. The events are hardly free of friction, but they take place in settings in which opportunities for extensive interaction within small groups help to separate myth from reality and foster agreement upon certain principles. The smaller group setting is necessary to give individual participants comfort in setting aside views grounded in their institutional or representation affiliations and to entertain other ways of looking at the world.

In performing the function of conveners, academic hubs supplement and enrich the work of public and private multinational institutions that, to a considerable

extent, seek to promote the adoption of global standards for economic regulatory policy. These include organizations such the International Competition Network, the Organization for Economic Cooperation and Development, and the United Nations Conference on Trade and Development. These bodies provide mechanisms to create a sense of common cause among the world's regulators and to encourage discussion and consensus building within a community of academics, public officials, and practitioners. Academic hubs not only provide valuable assistance directly to that regulatory community, but they also assist these and other multinational bodies in carrying out their own work as conveners.

3 Conclusions

Economic regulators confront a variety of daunting knowledge problems when seeking to fulfill their mandates. Among other challenges, regulators must strive to comprehend the significance of developments in complex, fast-changing commercial sectors; integrate advances in the theory of regulatory economics into routine operations; assess the consequences of regulatory initiatives; understand current regulatory initiatives in a larger historical and political context; pursue an institutional framework that is well-suited to performing regulatory duties; and assist in building a larger consensus about the correct path for policy. All of these activities place a premium on the regulator's capacity to recruit and retain skilled personnel, to create mechanisms to stay abreast of adjustments in the commercial environment, and to engage with external constituencies with an interest in the regulator's work.

Regulators cannot perform these tasks successfully working alone, if for no other reason that legislators rarely provide resources that match the commitments stated or implied in statutes that establish regulatory regimes. In most countries, there is an inevitable, substantial gap between what regulatory statutes promise and what nations, through their elected officials, are willing to pay to deliver upon the promises.

To cure the mismatch between commitments and capabilities, regulators must enlist the assistance of "co-producers"—institutions that stand outside the agency and have means to supplement the regulator's own resources and increase its effectiveness. Academic hubs are one species of the co-producer that provides this important complement to the agency's own efforts. In forming the Center for Research in Regulatory Industries and, with Paul Kleindorfer, developing its program in postal and delivery economics, Michael Crew supplied a valuable foundation for policy making by postal regulatory systems around the world. It is a relatively small number of postal regulatory regimes that have not benefitted, directly or indirectly, from the Crew-Kleindorfer as scholars, teachers, and conveners. Together, they supplied ideas and nurtured relationships that have supported good policymaking for postal and delivery services and in other areas of economic regulatory policy.

There are various ways in which economic regulatory systems can make better use of the contributions of academic hubs. The first step is for regulators to recognize academic hubs as structures that can support the development of effective regulatory regimes. This involves identifying, as set out in this paper, the contributions that academic hubs can make toward improvements in regulatory performance, and to enlist their cooperation as co-producers of good economic regulation. To put it another way, the contributions of academic hubs might be seen as indispensable for an economic regulatory regime to achieve the fullest beneficial expression of the possibilities inherent in the legislative framework that established the regulatory process.

A second, related step is for universities and related institutions to understand and embrace the role that they can play as regulatory policy co-producers. The Crew-Kleindorfer contributions to policy development in postal and delivery services and the CRRI postal conferences are worthy of close study by university departments in business, economics, law, and public administration because they should how a university's resources and distinctive traits (e.g., its ability to serve as a trusted, neutral forum for policy discussion) can be harnessed to strengthen the quality of public policy. There are many examples beyond the CRRI that one can examine—including impressive programs run by ANSZOG at the University of Melbourne, the European University Institute and its Robert Schumann Center for Advanced Studies, the Toulouse School of Economics, and the University of Paris-Dauphine and its "club of regulators" project—to see how this can be done with considerable skill and positive effect.

A third step, and consequence of the stocktaking implied by the two suggestions offered above, is the attainment of a deeper awareness of what types of investments, by economic regulators and their co-producers, support the development of high quality public policy. This awareness can yield a more focused understanding of the intellectual and institutional infrastructure that supports the regulatory process—the importance, for example, of continuing, substantial investments in policy research and development as vital inputs into the formulation and implementation of economic regulation (Kovacic and Hyman 2016).

To see more clearly where good regulatory programs come from can build a consensus, within the community of academics, government officials, and practitioners, of what a regulatory system needs to prosper, and what regulators and the legislative bodies that established them must do to realize good results in the design and operation of regulatory institutions. Michael Crew and Paul Kleindorfer devoted much of their professional lives to creating this awareness. They were major architects of the intellectual and institutional infrastructure that supports high quality policymaking. The good work that takes place in regulatory policy for postal and delivery services travels on that path every day.

References

Allison, Graham T. The Essence of Decision (Little Brown 1971)

Brennan, Timothy. 2017. Michael Crew's (and Paul Kleindorfer's) Scholarly Contributions to the CRRI Postal Conferences, 1992-2012. In this volume.

Hyman, David A., and William E. Kovacic. 2014. Why Who Does What Matters: Governmental Design and Agency Performance. George Washington University Law Review. 82: 1446-1516.

Kovacic, William E. 2005. Measuring What Matters: The Federal Trade Commission and Investments in Competition Policy Research and Development. Antitrust Law Journal. 72: 861-69.

Kovacic, William E. 2007. The Importance of History to the Design of Competition Policy Strategy: The Federal Trade Commission and Intellectual Property. Seattle University Law Review. 30: 319-47.

Kovacic, William E. 2015. The Federal Trade Commission as Convenor: Developing Regulatory Policy Norms without Litigation or Rulemaking. 13: 17-30.

Kovacic, William E., and David A. Hyman. 2012. Competition Agency Design: What's on the Menu? European Competition Journal. 8: 527-41.

Kovacic, William E., and David A. Hyman. 2016. Consume or Invest? What Do/Should Regulatory Agency Leaders Maximize? Washington Law Review. 91: 295-324.

Kovacic, William E., and Marianela Lopez-Galdos. 2016. Lifecycles of Competition Systems: Explaining Variation in the Implementation of New Regimes. Law & Contemporary Problems. 79: 85-122.

Parcu, Pier Luigi, and Vincenzo Visco Comandini, 2017. On Some Historical Contributions of the Postal and Delivery Conferences. In this volume.

Sparrow, Malcolm K. 2011. The Regulatory Craft – Controlling Risks, Solving Problems, and Managing Compliance. The Brookings Institution.

On Some Historical Contributions of the Postal and Delivery Conference

Pier Luigi Parcu and Vincenzo Visco Comandini

1 Introduction

This paper explores market and regulatory themes developed and debated at CRRI (now EUI-CRRI) Conferences on Postal and Delivery Economics.[1] These include efficiency of postal operators, universal service and financing, third-party access to postal networks, and full market opening (FMO). Thematic development has relied on the cross-fertilizing mixture of participants that includes academics, national postal providers, mail competitors, express courier services, regulators, law scholars, consultants, technology experts and unions.

Since the first Conference in 1990, postal scholars have noted similarities between postal services and telecommunications. Both industries provide connection to consumers through local networks with increasing returns and constant returns to scale for non-delivery functions. However, unlike fixed telecommunication services (TLC), entry into local postal delivery arises because facilities are mainly not fixed, nor are their costs sunk. In addition, legacy national postal operators, called universal service providers (USPs), are always under a universal service obligation (USO) across the country, often at a uniform price.

These characteristics of postal services have led to a debate regarding whether they are natural monopolies, since competition with a natural monopoly need not generate efficient outcomes. Panzar (2001) argued that, where the USP is the only

[1] All works cited in this paper are published in the books produced after each of the 25 Conferences: the year identifies the book and the chapter's author(s).

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service provider, it is presumptively efficient as a supplier since there are no comparable alternatives. Several empirical studies presented at the Conference examined USP efficiency. Debate at the Conference often focused on whether prices of inputs, particularly labor, are exogenous, since USP employees usually enjoy some sort of wage premium. Other studies presented at the Conference found misallocation of inputs. Presently, in European countries, end-to-end competition tends to align prices to costs, thus pushing USPs toward greater efficiency in order to defend market shares. However, USPs' search for efficiency is made more difficult by letter mail volume declines, since it requires to continuously adjust delivery networks and to discuss it with employees, unions and citizens, unwilling to accept dramatic changes. Also the traditional demand analysis of the sector, primarily focused on price setting, has been affected by e-substitution and, over the years, shifted to much more complex strategies for USPs competing with digital media.

FMO has been implemented in the European Union. The US (and, to some extent, the UK and New Zealand) have allowed competition for partial mail products while delivery remains a monopoly, *de jure* as in the US, or *de facto* as in the UK. Michael Crew and Paul Kleindorfer (2011) stress the need for its gradual and controlled implementation. They said that while FMO seems to produce only modest benefits, the risks of either destructive competition, or USO provision being underfinanced, are very high. Unbundling postal services delivery may facilitate competition under non-discriminatory access conditions and access prices corresponding to the efficient component pricing rule (ECPR). However, both theory and market reality show that the implied regulatory tasks required to implement competition through access are far from trivial.

Section 2 summarizes the main findings relating to the USP efficiency, while Sect. 3 focuses on demand. Section 4 analyzes issues relating to USOs, Sect. 5 investigates network access and its replicability, and Sect. 6 discusses FMO. As usual, the conclusions follow.

2 Natural Monopoly, Returns to Scale and Efficiency in Postal Services

Are postal services a natural monopoly? Estrin and De Meza (1991) defined postal services as an "*unnatural*" and unsustainable monopoly. Final delivery may be a natural monopoly but not other services in the value chain (Panzar 1991). Moreover, competitors may provide delivery in densely populated areas, leaving the USP unprofitable rural delivery and threatening the financial sustainability of USO provision. However, for Lenard (1993), even if the cost of postal services is sub-additive over the relevant output range, entry need not be restricted. He mentions the case of unregulated third class mail in the US, where competitors have lower costs compared to USPS. Campbell (1997) questioned USP's postal monopoly by observing successful market openings in airlines and similar industries.

Economies of scale are very important in relation to postal services (Rogerson and Takis 1993; Bradley and Colvin 1995; Cazals et al. 1997). Rogerson and Takis were the first to estimate cost elasticities by function in the US, showing that final delivery costs are rather inelastic in relation to volumes (elasticity of around 0.35), thus supporting the natural monopoly hypothesis for this crucial function. Conversely, parameter estimations of elasticities for sorting and transport resulted in values close to 1. Cohen et al. (1993) and Roy (1999) shows that unit costs fall as the percentage of a postman's drop points receiving at least one item each day increases. Roy also found that the number of items delivered to each drop point affects delivery costs more than the population density.

These findings may explain why end-to-end competitors in Italy and Spain hold a higher market share than in other member States. These countries have significant densely populated urban areas with tall buildings and relatively few single homes. In such areas competition is fierce because scale economies are low. This allows a competitor to provide services in all of the densely-populated areas, despite low per-capita volumes. In Italy, two main private competitors provide national delivery to almost 70–75% of final recipients, allowing them to jointly hold 20–25% of non-urgent presorted business mail (Visco Comandini and Mazzarella 2011).

Roy's approach gave rise to other papers such as d'Alcantara and Amerlynk (2006) that showed the importance of scale economies on a USP's financial vulnerability following market liberalization. Using data from different countries on volume, unit costs, cost shares and elasticities by function, Cohen et al. (2002) found that higher per capita volumes in a country imply a higher cost elasticity for delivery. Countries facing low per capita volumes provide services at higher unit costs. Thus, their USPs are more vulnerable to competition and at higher risk of a "graveyard spiral" (higher costs − higher prices − lower volumes). Cohen et al. (2010) found that 78% of USO net costs in the US are fixed.

Cost elasticities differ when the volumes go up or down. Cazals et al. (2005) showed that, in the UK, delivery costs rise approximately in line with delivery points, and that cost elasticities for delivery in rural areas are lower than in urban areas. Delivery costs thus crucially depend on the volume per delivery point, implying that delivery costs decline less rapidly than volumes. Bradley et al. (2012) found that the short-run elasticity of delivery time with respect to volume is nearly one third less (0.07 vs. 0.11) when volume declines than when it rises. This asymmetry may be explained by the need to avoid harm to postal workers and unions (Sauber 2002).

Today, the main challenge for USPs is the ability to adjust their delivery networks to falling volumes. For a USP, a more flexible delivery network results in greater efficiency and financial health. The success of the Express Courier industry is largely due to the providers' ability to daily reshape their delivery routes, a strategy that USPs cannot normally apply equally well because of both USO and Political economy issues, in particular, union power. Nevertheless, several European USPs (Royal Mail, La Poste, PostNL, Deutsche Post/DHL) regularly update the postman's delivery rounds, on average four times a year.

Other USPs do not respond as quickly to volume drops. Unions are often able to restrict the USP in workforce adjustments to reduced volume (Harman et al. 2010).

Cross-country efficiency benchmarking has been improved over the years. Cohen et al. (1997) measured the productivity for 21 USPs; Meschi et al. (2015) discussed parametric and semi-parametric methods for measuring the efficiency of postal operators. Gori and Pierleoni (2013) compared the efficiency of some USPs across the Atlantic. USPS ranked second in efficiency after Deutsche Post by applying the maximum likelihood parametric estimate with exogenous variables, for the authors the most reliable technique.

Internal benchmarking can also measure USP efficiency. The Conference has provided many econometric studies (among them Christensen et al. 1993; Pimenta et al. 2000; Maruyama and Takanobu 2002; Moriarty et al. 2006; Horncastle et al. 2006; Cazals et al. 2012), showing evidence of local inefficiencies. Harman et al. (2010) showed that stochastic frontier estimates can be erroneous if union constraints are not properly considered, especially at the local level. Regulators are very interested in this measurement, since it helps in giving advice on the most appropriate productivity factor (X) to apply to price caps; Treworgy et al. (1999) provide an international comparison. Rodriguez (2013) observed that PostComm fixed Royal Mail's X at 3% based on Moriarty et al.'s (2006) internal efficiency estimates.

Crew and Kleindorfer (2001) called for a more realistic approach towards X-efficiency. They introduced an institutional constraint in their model (2002), where both the regulator and the regulated firms can achieve a mutually sustainable commitment. However, this is not a trivial task (Toledano 2010). She observed that in theoretical models of regulation, the incumbent typically keeps secret as much information as possible in order to preserve its informational rents. Her experience on both sides of the regulator-regulated firm game suggests that cooperation with the regulator may be the best strategy for the incumbent, especially if the regulator has alternative sources of information. Hearn (2008) lists many types of accounting data and procedures that postal regulator needs to assess a USP's efficiency and create a level competitive playing field.

3 Demand

Demand is the key driver for keeping USOs viable. In almost all countries, mail volumes grew following GDP trends until around the end of the 1990s, but began to drop after the mid-2000s. Several time series and cross sectional demand models were presented at the Conferences (among them Nankervis et al. 1999; Cazals and Florens 2002; Cazals et al. 2011; Fève et al. 2012; Jarosik et al. 2013; Bzhilyanskaya et al. 2015). Some models included recipients demographic and the economic characteristics (Wolak 1997; Plum 1997; Colin and Davis 1999; Berthélémy and Toledano 2000; DeRycke et al. 2001; Koppe and Bosch 2006), or the economic downturn (Martin et al. 2013). Results may differ for total traffic or

specific letter segments such as transactional mail (De Donder et al. 2015). Rodriguez (2013) found that aggregating products into large classes risks biasing coefficient estimates, since each postal product has its own demand function, which includes substitution with others and that anyway quality of service exhibits very little effect.

Own price elasticities are generally low (0.2–0.5); cross sectional estimates are slightly higher. Visco Comandini et al.'s (2009) review of prior studies found that, despite market liberalization, price elasticities tend to decline over time or at least remain stable. This evidence contrasts with standard economic intuition, but is consistent with Brennan and Crew's (2014) finding that if high elasticity users adopt electronic substitutes, remaining postal customers will have less elastic demand.

Nikali (1995, 1999, 2008, 2011) first investigated e-substitution. Adding logistic diffusion curves of competing media (such as telefax or broadband) to his demand models, he showed that e-substitution cannot be captured by a single proxy variable. Other studies (Trinkner and Grossman 2006; Meschi et al. 2011; Elkela and Nikali 2013; Elkela et al. 2015) observed that e-substitution, being correlated to the other traditional explanatory variables, requires a much more sophisticated treatment in demand models. Jimenez et al. (2006a, b) found that US households with an older head receive much more mail than younger households do, the latter being more willing to use electronic substitutes. As B2C is the largest part of mail traffic and the population in industrialized countries is aging, he concluded that e-substitution will reduce mail volumes on average 3% until 2025. Cazals et al. (2008) used a Monte Carlo simulation to show that structural breaks in econometric models to capture step changes in e-substitution increase forecast error. To overcome this problem, Fève et al. (2012) adopted a Bayesian forecast model that combined time series with other source of information on changes in the recipient's preferences and ability to use new technologies.

4 USO Extent and Financing

Free mail delivery for final recipients was adopted worldwide after Rowland Hill's postal reform in 1840 (Crew and Kleindorfer 1991). This allowed booming growth of postal service from both a dramatic reduction in transaction costs and the exploitation of substantial network externalities. Felisberto et al. (2006) proposed a controversial recipient's delivery charge to realign USO's costs and benefits. There are concerns with this policy option, since it risks destroying network externalities, thus lowering senders' willingness to pay.

Postal researchers have long stressed the need to reshape the USO under liberalized markets. Haldi and Merewitz (1997) and Cohen et al. (2000) were among the first to discuss the benefits of relaxing service standards for priority mail, since such a measure could significantly lower (fixed) costs in high cost routes. Robinson et al. (2015) analyzed the effect discontinuing Saturday delivery. Brennan and Crew (2014) showed that falling demand reduces the ability of a USP to fund the USO, suggesting either government support or making USO less demanding.

Governments, in times of severe public deficit constraints, are unwilling to finance the USO through subsidies. In Europe, public transfers to firms under FMO are always carefully scrutinized by the European Commission, since they constitute State aid (Fratini and Filpo 2006; Eccles 2011). Consequently, lowering quality or reducing the number of delivery days per week appears necessary to deal with the volume drop due to competition and e-substitution. However, politics matters, since Post offices, in particular, are a network that plays an implicit institutional role in connecting rural areas with the main towns.[2] National and European legislators are charged with defining the most appropriate USOs in the interest of consumers and citizens, but these interests often conflict directly with enhancing USP efficiency (Cigno et al. 2010). Some countries set minimum geographical density for post offices or require a political decision when the USP wants to close financially unsustainable rural facilities.

Campbell (2010), analyzing the history of the USO in the U.S., showed that political actors are reluctant to enter into any serious reform. Cohen et al. (2008) showed that post office mail distribution in the US and in Italy, in contrast to pharmacies or bank counters, can hardly be considered rational. In rural areas it follows neither income nor population, but instead is adjusted to local government's boundaries.

The Conference provided important contributions on the relation between USO breadth and efficiency, some of them attempting to measure the USO's net welfare effect (Crew and Kleindorfer 2009; De Donder et al. 2010; Jaag et al. 2014). Pearsall and Trozzo (2011), evaluated demand effects when some quality characteristics of the USO (like speed) are reduced. As this body of work found that USO's specification changes affect their costs more than demand, those changes become the main policy for allowing a USP to break even. For customers, reliability has increasingly become more important than speed, which today is supplied by USPs through USO priority mail products. High speed USO regulated products require high-cost dedicated networks, and the exploitation of economies of scale, which are at risk due to e-substitution.

To ascertain whether FMO may endanger USO financing. European and National Regulators have prescribed the measurement of the economic burden due to USO (Crew and Kleindorfer 2001). Many papers have contributed to the debate on the most appropriate methods for this kind of evaluation (among them Rodriguez et al. 1999; Cremer et al. 2000; Panzar 2001; Jaag et al. 2009; Cohen et al. 2010; Bradley et al. 2009; Carlslake et al. 2014). This led to consensus on the profitability approach, calculating the USO net cost as the difference in a USP's profits when charged with a USOs and its profits were it freed from the USO. This method was adopted by the third European directive.

[2]"The Postal Service shall have as its basic function the obligation to provide postal services to bind the Nation together through the personal, educational, literary, and business correspondence of the people" (39 U.S. C. §101(a)).

These contributions did not consider the compensation fund envisaged by the third European Directive as a possible tool for USO financing. The compensation fund, so far put in place only in Poland, does not seem to be viable in other member States (Fratini 2016). Serious implementation difficulties include defining its tax base (who should pay for it), and its tax rate (which should neither distort competition nor push competitors out of the market). The third Directive defined the tax base those non-USO services viewed from the customer's perspective as interchangeable with USO services (Eccles 2011). It defined USOs as "dynamically evolving", but this could lead the USO product boundary, if widely defined, to inevitably overlap with almost all existing and future non-USO deregulated postal products.

Finally, one important issue concerning the USO has been discussed in depth by the Conference participants: International cross-border mail, which is subject to UPU rules. A long list of contributions criticized the present institutional framework for its capability to distort prices (among them, Walsh 2000; Campbell 1993, 2001, 2016; Harford and Eitan 2004; Campbell et al. 2012) but a commonly accepted solution appears far from being easy to find.

5 Network Access and Replicability

A main contribution at the Conferences was a series of papers by Crew and Kleindorfer on access to the postal network (1995, 2000, 2002, 2010, 2011, 2012). They called for prudence in transferring findings about other regulated sectors to the postal industry, as postal entry and access problems are idiosyncratic. Okholm et al. (2015) and Parcu and Silvestri (2017) reached a similar conclusion with respect to comparisons with telecoms.

In the US, upstream competition has been adopted since the '80s through worksharing discounts and regulatory schemes based on the ECPR. Postal scholars (Panzar 1993; Cohen et al. 2006; Billette de Villemeur et al. 2004, 2006; De Donder et al. 2006) generally favored, with *caveats,* this regulatory framework. Crew and Kleindorfer (2002) argued that the standard approach to ECPR assumes a single-product world, which is implausible in postal services, because every delivery area constitutes a different product with different cost characteristics. They proposed, instead, an ECPR where access prices are set for specific delivery zones. This solution eliminated subsidies that would otherwise promote inefficient entry, including use of the USP's facilities for downstream access at rates that do not cover the marginal cost. In their view, zonal pricing was a necessary tool for a USP to compete with end-to-end competitors applying selective by-pass strategies.

The ECPR is intended to limit access to postal networks to only efficient entrants, i.e., those able to operate at a costs not higher than the USP. Market experience shows that this goal is quite hard to reach. In the UK, upstream and first level (i.e., incoming sorting centers) downstream access prices make end-to-end

competition virtually nonexistent (Dudley et al. 2009), while access traffic accounts for nearly half of the volumes delivered by the USP (Rodriguez 2013).

This evidence suggest that once end-to-end competition is in place, a full access regime is unfeasible and, *vice versa*, when the latter is adopted, the former becomes uneconomic, as shown by the British experience. Crew and Kleindorfer (2010) explained that if the discount on full price is higher than avoided cost, a potential end-to-end entrant will instead purchase access because it is subsidized by the excessive discount. In Crew and Kleindorfer (2011), they presented a theorem on the superiority of access, showing that it is preferable compared to end-to-end competition.

Considering that postal facilities are almost certainly not economically sunk, network replicability has been discussed at the Conference. In contrast to the last mile wired connection in telecoms, final postal delivery networks are technically, but not necessarily economically, replicable. However, under FMO, regulators have scrutinized other elements of the postal infrastructure, since some ancillary services run by the USP may be needed by alternative operators to compete for delivery. These services include access to a PO Box, a postcode database, changes of address, and 'return to sender'. For such services, the public interest relies more on ensuring interoperability than overcoming a bottleneck. Suggestions provided by papers at the Conference move towards a mixture of ex-ante soft regulation, creating incentives for commercial agreements in which the regulator intervenes only if there are disputes.

Panzar (2002) was the first to identify PO Boxes as being a major problem for competition. Customers who receive their mail at PO Boxes are unwilling to duplicate it in order to get competitor's mail at another PO Box. Under such circumstances, an efficient access charge, equal to the end-to-end service price less the per unit USP's cost savings (i.e., the per unit PO Box service USP's contribution to its overhead costs) may be the solution.

Fratini et al. (2010), analyzing experiences in Sweden and France, noted that the problem is organizational. A USP can insert its mail into the customer's PO Box located within the PO before opening hours, but competitors willing to reach the same PO Box need to inject their mail outside the PO. This requires a commercial agreement since the mixture of avoided and additional activities are not the same in all localities. The authors favored a reciprocal, de-averaged two-part tariff as implemented in France and Germany, where the fixed part reflects billing and the cost of acceptance, and the variable part the costs of conveying mail from the point of acceptance to the PO and its deposition in the PO Box.

The USP manages postcode database and can change codes unilaterally. The problem arises when changes in codes occur, which are unilaterally decided by the incumbent who is willing to change their delivery units. This imposes costs on competitors who are willing to print and sort their mail to obtain worksharing discounts (Dieke and Scholermann 2008). The recipients' address database is another valuable information tool. The USP can regularly enter changes of address, while competitors can do the same only partially. The Swedish experience shows that a consortium maintaining the database and providing access for its members (all postal providers), may solve this technical problem as long as it doesn't become an instrument of collusion.

An additional access problem arises with undelivered registered mail in countries, like Italy, where registered mail represents a significant share of revenues (almost 20–30% for both USP and competitors). Once the first or the second delivery attempt fails, the mail is sent back to either a PO (if the service is run by the USP), or to a facility where the addressee can collect it. While competing facilities for obtaining registered mail can coexist in urban areas, duplication of such facilities in rural areas is likely to be uneconomic. In Italy, competitors are presently discussing with the regulator AGCOM (n. 651/16/CONS consultation document) whether they could access USP's POs for customer pickup of undelivered registered mail. As this mainly relates to rural POs with low mail traffic, availability through a cost plus criterion seems reasonable. Such access, by adding activities that are otherwise not performed, may (marginally) increase the USP's revenues for financing the USO.

6 Market Liberalization

In Europe the decision to liberalize the market was taken in the late 1990s, when postal volumes were growing. However, it was implemented only in 2011 in a different market environment. Harmonization of efficiency, commercialization, and healthy provision of the USO became nearly impossible (Toledano 2013). In some member States, end-to-end competition increased choices for customers and lowered prices for large bulk mailers, but retail consumers of USO products faced higher prices. While competition aligns prices to costs, it can have redistributive consequences: in the example, large customers were better off, but single-piece retail customers worse off.

However, the main difficulty was that FMO was to be applied to a rapidly declining market. With lower volumes, it increased the difference between markets (non-urgent bulk mail) where competition is fierce, and markets (single-piece USO products) where the USP is the only, often loss making, provider. After FMO, some member States (Germany, the Netherlands, Poland, UK, the Scandinavian countries, and others, France for parcels only) have restricted USO products to single piece items being accepted at POs or put into the mailbox, but excluded items accepted at sorting centers. Conversely, France and Italy preferred to maintain a larger USO area for mail that includes some bulk products.

The lack of harmonized rules on bulk mail USO products across member States inevitably affects competitive conditions in both national and cross-border markets. Some problems include asymmetric VAT exemptions (Dietl et al. 2011; Walsh 2011), relevant market definitions (Plum and Schwarz-Schilling 2000; Wojtek and Zauner 2012), and customers' choices in multisided postal markets (Boldron et al. 2009).

Rodriguez (2013) pointed out that FMO implies a shift from ex ante price regulation to ex-post regulation through competition law, in particular ascertaining whether USPs abuse their dominant position by contravening Article 102 of the