

GIVE CANADA POST A BREAK: ALLOWING MORE PRICING FLEXIBILITY AND COMPETITION COULD HELP THE CORPORATION SUCCEED[†]

Philippe De Donder^{*}

SUMMARY

Canada Post's lettermail volumes are plummeting, largely due to the explosion of electronic communication, with no evident sign of stabilizing. E-commerce parcel deliveries are on the rise, but not nearly at the rate necessary to offset the decline in lettermail, and there are many private courier companies competing for that business. Meanwhile, even as the number of Canadian home addresses continues to increase, Canada Post's plan to end the remnants of door-to-door home delivery, had to be halted in light of the new Liberal government's promise to maintain the service. The extraordinary disruption that electronic media has caused to the model of state-owned postal services, with their mandate to provide universal delivery, may seem dire. And the threat is indeed urgent. But there are solutions to help Canada Post remain healthy in reforms that have occurred to postal systems elsewhere.

This does not necessarily mean immediate privatization (although that has been achieved with some success in Europe): The burden of universal service obligations in a country as expansive and minimally populated as Canada is, could make it difficult for the government to realize appropriate value in selling Canada Post. But if the Liberal government intends to help Canada Post endure in this environment, it should allow the corporation to introduce some basic elements of competition and market-based reform.

The reality is that most Canadian mail today is sent by large firms to customers and other businesses. And most mail is delivered in urban areas, where delivery costs are lowest. But because Canada Post is required to charge identical prices to all customers, urban households essentially help subsidize the postage costs of big business and rural recipients. This need not be the case: Canada Post would be more successful if it could charge varying rates (capped at a maximum) based on the type of sender,

[†] The views expressed here are those of the author and not of any institution he is affiliated with. The author thanks two anonymous referees for their comments. He remains solely responsible for all mistakes or shortcomings in this document.

^{*} Toulouse School of Economics, Manufacture des Tabacs, 21 allée de Brienne, 31015 Toulouse Cedex 6, France. Phone: +33 633 39 96 01. Email: philippe.dedonder@tse-fr.eu.

volume, and the mail's destination. One could also imagine scenarios where recipients pay an annual fee for different levels of service, paying extra for door-to-door delivery for example.

Canada Post currently allows its clients to compete with it for the sortation of mail (offering discounts for firms willing to pre-sort mail), and there is much more room for competition in the collection, transport and sorting of mail. Already, it is likely that Canada Post has too many sorting facilities, given the advent of new sorting technologies; outsourcing certain upstream operations could help it further reduce its infrastructure and labour costs. There is also a case to be made for Canada Post reducing its delivery frequency and delivery times, especially in higher-cost rural areas. Surveys indicate that Canadians would be fine with that.

Allowing competition in delivery, on the other hand, comes with risks of rivals willing to snap up delivery routes in dense urban networks, leaving Canada Post with an even less profitable model in being left to deliver its (and competitors') products in only high-cost areas. This can be offset, however, by requiring competitors to assume some of the incumbent's universal service obligations, or at least paying a tax to compensate Canada Post for its obligations.

Ensuring these reforms remain compatible with the financial viability of the incumbent would be helped by setting up an independent regulator to ensure the maintenance of a level playing field and to separate the influence of politics from decision-making. In the current era, however, the idea that universal service obligations should be exclusive to mail carriers seems antiquated. It is only rational that the independent regulator be charged with overseeing that universal service obligations are shared between telecom services and mail services.

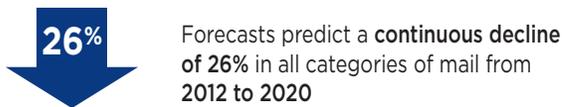
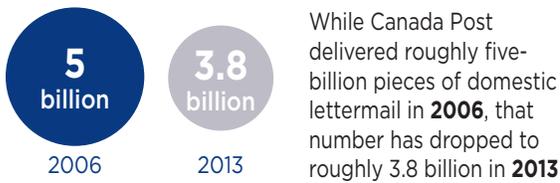
GIVE CANADA POST A BREAK

ALLOWING MORE PRICING FLEXIBILITY AND COMPETITION COULD HELP THE CORPORATION SUCCEED

By Philippe De Donder | February 2016

PLUMMETING LETTERMAIL VOLUMES

Canada Post's lettermail volumes are plummeting, largely due to the explosion of electronic communication, with no evident sign of stabilizing



87% of Canadian households were connected to the Internet in 2013, making Canada the 16th-most-connected country in the world



E-commerce parcel deliveries are on the rise, but not nearly at the rate necessary to offset the decline in lettermail

5 - 7%

Between 2009 and 2014, Canada experienced large decreases of 5-7% in average volume delivered by addressee



240,000

While mail volumes are decreasing, the number of addresses in Canada is rising by approximately 240,000 per year



Door-to-Door



Centralized Point



Community Mailbox



Delivery Facility



Rural Mailbox

Canada Post is quite unique, as only **one-third of its customers** (roughly five-million addresses) benefit from door-to-door delivery

The remaining two-thirds are served by delivery to centralized points, group mailboxes, delivery facilities and rural mailboxes

SOLUTIONS

PRIVATIZATION

- + Immediate privatization is not necessarily the solution for Canada Post
- Realizing the appropriate value in selling Canada Post could be difficult due to the burden of universal service obligations
- + Instead, the government should help Canada Post endure by allowing the corporation to introduce basic elements of competition and market-based reform

UNIVERSAL SERVICE OBLIGATIONS



Most Canadian mail today is sent by large firms



Most mail is delivered in urban areas, where costs are lowest

- Urban households **help subsidize** the postage costs of big businesses and rural recipients because Canada Post is **required to charge identical prices to all customers**
- + Canada Post would be **more successful** if it could charge varying rates (capped at a maximum) based on the type of sender, volume and the mail's destination

INTRODUCING COMPETITION

- + Canada Post offers discounts for firms who pre-sort mail, but there is much more room for competition in the collection, transport and sorting of mail
- + Outsourcing certain upstream operations, such as sorting facilities, could help Canada Post further **reduce infrastructure and labour costs**
- **Allowing competition in delivery comes with risks of rivals snapping up delivery routes in dense urban networks, leaving Canada Post to deliver its products in only high-cost areas**

SETTING UP AN INDEPENDENT REGULATOR

- + Setting up an independent regulator would help ensure that reforms remain compatible with Canada Post's financial viability as well as maintaining a level playing field and separating the influence of politics from decision-making
- + The independent regulator should be charged with overseeing that universal service obligations are shared between telecom services and mail services

1. INTRODUCTION

The postal sector is at a crossroads everywhere in the world. It increasingly competes with other industries, such as media and telecommunications, as can be seen from the large and persistent fall in letter volumes in all advanced economies since the mid-2000s. The sector has also been reorganized recently in several parts of the world, including the U.S. and the European Union, to introduce more competition while ensuring the viability of the universal-service obligations faced by the incumbent postal operator. Canada Post is also faced with the same technological evolutions, and made front-page news with its decision to put an end to door-to-door delivery.¹

This paper concentrates on the lettermail business of the postal operators. Postal operators are also active in other areas, mostly parcels, but also express courier. Many postal operators throughout the world also offer banking services. We concentrate on lettermail because it represents the core of the postal operators' businesses. For most operators, lettermail has long represented by far the largest share of both volumes and revenue. The parcels and express-courier activities differ a lot from the lettermail business. From a technological viewpoint, parcels and express courier do not exhibit the same characteristics as lettermail, with their much lower fixed costs and few if any universal-service obligations. As a consequence, and unlike lettermail, the parcel and express-courier markets have been organized competitively in most countries, with the incumbent postal operator facing a lot of competition. With the fall in lettermail volumes and the concurrent rise of parcels (thanks to the strong development of e-commerce), the share of lettermail in the activities undertaken by postal operators is decreasing, but with few exceptions (such as New Zealand Post) lettermail still currently represents the first activity of the postal incumbents. As we will see, this may not be true for much longer.

We start this paper by presenting the main characteristics of the postal sector. Although posts belong to the large category of network industries, they present very specific attributes, which have to be taken into account in any analysis. We first describe the postal activities, from collection to sorting, transport and delivery. Each of these activities has very specific features, with delivery comprising half of the costs and exhibiting increasing returns to scale. We then stress that up to 90 per cent of mail is sent by businesses rather than by households, and then move to a quick description of the universal-service obligations imposed on the postal sector throughout the world. We finish this section by explaining why the postal sector can be seen as a two-sided market, and why it matters.

¹ At the time of writing, Canada Post had just announced it was halting the move to deliver home mail to community mailboxes only, to reflect a campaign promise of the newly elected Liberal government. See Carrie Tait and Les Perreux, "Canada Post suspends plans to install community mailboxes," *The Globe and Mail*, October 26, 2015, <http://www.theglobeandmail.com/news/politics/canada-post-erecting-community-mailboxes-despite-liberal-delivery-pledge/article26981780/>.

In Section 3, we present the recent evolutions in this sector, starting with changes in how it is organized in the European Union and in the U.S. This comparison is interesting because it highlights two very different routes to introduce competition in the sector. We then show how the sector has been affected by e-substitution, with a large decrease in letter volumes since the mid-2000s.

Section 4 is devoted to the Canadian postal sector. We start by describing its specific features and its recent evolution. The next four subsections contain our proposals for reform. We first talk about the necessity to reassess the universal-service obligations, since the extent of these obligations determines how much competition can be introduced in the market. We then make a case for setting up an independent regulator, whether the postal incumbent remains public or is privatized. We then turn to the introduction of competition, stressing that upstream competition is much more common everywhere in the world than is end-to-end competition. Finally, we discuss the arguments in favour of privatizing the incumbent, either at the same time that other changes are made, or later, as has been done in the U.K. Section 5 concludes.

2. MAIN CHARACTERISTICS OF THE POSTAL SECTOR

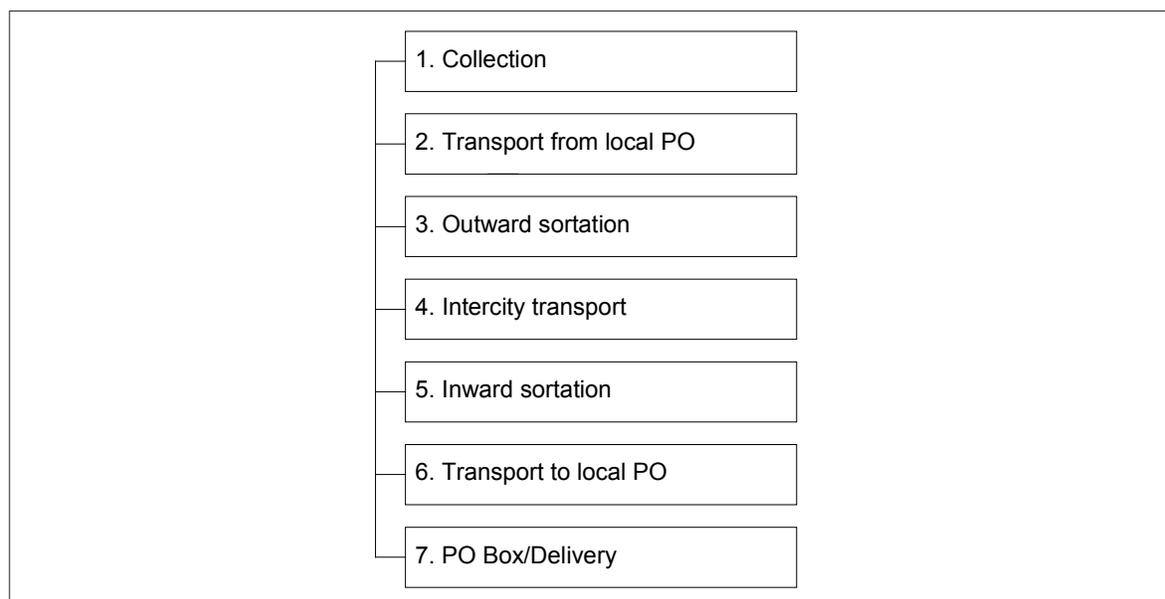
We start by presenting the main features of the postal-network activities.

2.1 Postal activities and sector organization

Postal activities are composed of different segments, as illustrated in Figure 1: collection, local transportation, outward sortation, long-haul transportation, inward sortation, transportation to post office (PO) and then delivery.² Local transportation links the collection points to the sortation offices. These regional sortation offices usually perform both outward and inward sortation, although at different times of the day. Mail is then transported to post offices and delivered to the addressee.

² Figure 1 is taken from J. Panzar, “Reconciling Competition, Downstream Access and Universal Service and Universal Service in Postal Markets,” in *Postal and Delivery Services: Delivering on Competition* (Boston: Kluwer Academic Publishers, 2002), 93–115.

FIGURE 1 THE POSTAL-NETWORK ACTIVITIES



There is little if any evidence that collection, transportation and sortation present significant economies of scale or sunk costs³ or that they could qualify as essential facilities.⁴ These activities can therefore be organized on a competitive basis. This has been the case, for a long time, in many countries, including those where the incumbent is (or was) protected by a legal delivery monopoly. For instance, in France, the transportation activity has been outsourced to a competitive fringe of transport companies for a long time. In the U.S., where the United States Postal Service (USPS) benefits from a legal delivery monopoly, most of the sortation activities are done by external parties (see section 3.1.2 below).

Delivery is very different, as most economists agree that it presents significant economies of scale.⁵ These returns to scale reflect the fact that a large part of the delivery costs are indeed fixed—i.e., they are independent of the volumes delivered. The size of the fixed costs is linked to two characteristics of the sector. First, most costs are indeed labour costs, and these costs are usually not very flexible—at least in the short term—because of specific labour contracts, such as public contracts (for civil servants) or contracts with a heavily unionized workforce. Second, fixed costs also arise because of the constraints put on delivery by universal-service obligations (see section 2.3 below). The requirement to offer delivery of mail to every address every weekday means that it is necessary to have a network of delivery offices and a level of staff within them, which is largely a fixed cost.

³ *ibid.*

⁴ M. Crew and P. Kleindorfer, “Balancing Access and the Universal Service Obligation,” in *Postal and Delivery Services: Delivering on Competition*, ed. M. A. Crew and P. R. Kleindorfer (Boston: Kluwer Academic Publishers 2002), 3-32.

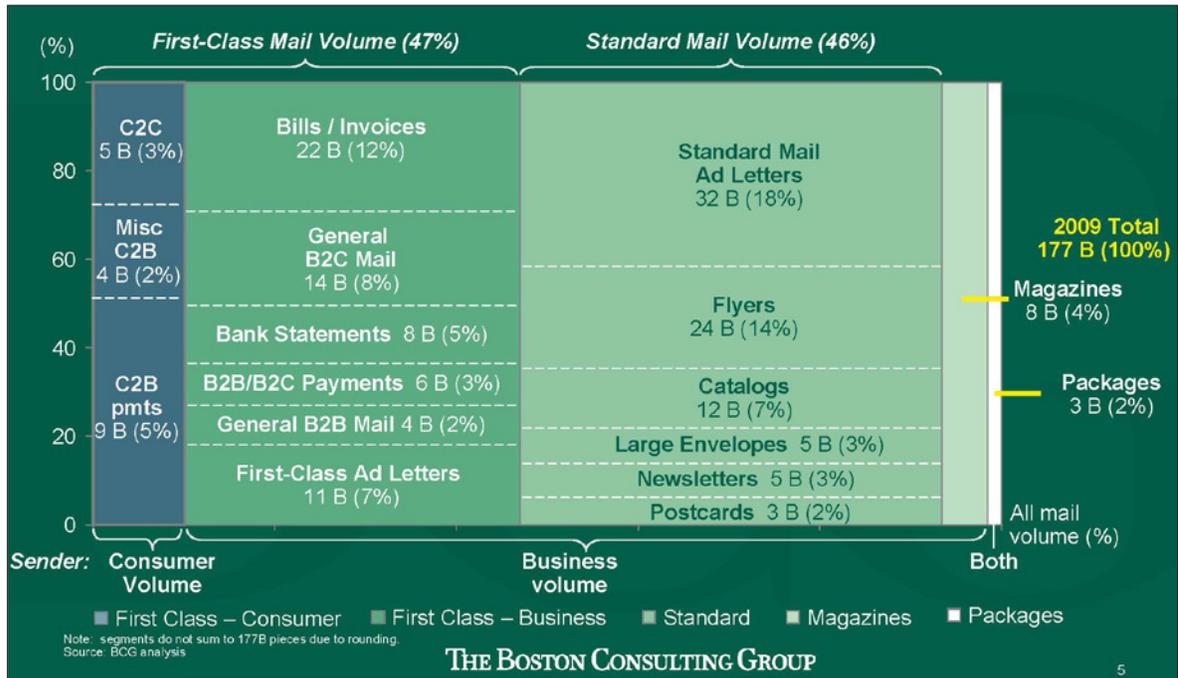
⁵ C. Rogerson and W. Takis, “Economies of Scale and Scope and Competition in Postal Services,” in *Regulation and the Nature of Postal and Delivery Services*, ed. M. A. Crew and P. R. Kleindorfer (Boston: Kluwer Academic Publishers, 1993); C. Cazals, J-P. Florens, S. Soterios, “Delivery costs for postal services in the UK: some results on scale economies with panel data,” in *Regulatory and Economic Challenges in the Postal and Delivery Sector*, ed. M.A. Crew and P.R. Kleindorfer (New York: Springer, 2005); M. Farsi, M. Filippini and U. Trinkner, “Economies of Scale, Density and Scope in Swiss Post’s Mail Delivery,” Swiss Economics Working Paper 0005 (Zurich, 2006).

The economies of scale in the delivery activity are especially important because delivery costs represent roughly half of the total postal costs.⁶ This also explains why the postal sector has been organized as a monopoly for a long time in many countries. It is important to note right away that returns to scale in delivery differ significantly across geographical areas, mainly between (low-density) rural and (high-density) urban areas. This observation has an important impact on the type of competition observed in the postal sector.

2.2 Most mail is sent by firms

It is important to do away with the romantic vision of manually written and stamped letters and recognize that up to 90 per cent of mail volumes originate from firms and governments, and are sent either to other firms (B2B flows) or to consumers (B2C)—see Figure 2.⁷ Also, a small number of large firms represent an important fraction of total volumes.

FIGURE 2 2009 U.S. MAIL VOLUMES



These large customers usually perform by themselves a large part of the postal activities, namely the sortation and transportation of mail to a processing centre of the postal operator. In exchange for performing these activities, they receive a rebate on the full retail price. This process is called “work-sharing” in the U.S. and “(customer direct) access” in Europe.⁸

⁶ Farsi, Filippini and Trinkner, “Economies of.”

⁷ Source: Boston Consulting Group, “Projecting US Mail Volumes to 2020,” Final Report (March 2, 2010), <https://about.usps.com/future-postal-service/bcg-detailedpresentation.pdf>; 2009 U.S. mail volumes.

⁸ Some authors use the term “upstream access” for work-sharing, since access is given to the outward sortation facilities, in contrast to “downstream access” for access given to competitors to the incumbent’s delivery network (inward sortation centres or even delivery offices).

This, in effect, means that postal firms are in competition with their own customers for part of their activity. We will come back to this most important phenomenon in section 4.4.

2.3 Universal-service obligations

Most countries impose universal-service obligations (USO) upon postal operators. These involve the obligation to supply a specific package of goods and services, of a determined quality, to all users (i.e., ubiquity), at “affordable” rates. A uniform-pricing requirement is often added, as in Canada. An important component of the quality aspect is the obligation to deliver a certain fraction of mail within a certain amount of time (depending on the size of the country, one or three days after collection), and to offer a minimum frequency of delivery throughout the country. For instance, in the European Union, a minimum definition is contained in the EU directives, but can be reinforced by individual member countries according to the principle of subsidiarity. In Germany or France, for instance, the requirement concerning the delivery frequency goes beyond the minimal EU requirements of five days a week. Certain countries also add constraints on the number and location of post offices. For instance, Section 10 of the Canadian Postal Service Charter states that a post office must be located within 15 kilometers of 98 per cent of Canadians.

Such requirements are often imposed on the incumbent postal operator (which we will call, from now on, the universal-service provider, or USP) but usually not on competitors, who may then choose which segment (defined by product or by area) of the market they want to enter, and what price to post on each market segment. Such an asymmetry between obligations for various operators, sometimes coupled with mandatory access to the incumbent’s delivery network, opens the door to “cream-skimming” by entrants. We will come back to this important point in section 4.4.

Among the justifications given for the USO is the fact that the postal sector is a two-sided market. We now move to this aspect.

2.4 Two-sided market

Network externalities are a classical justification of USO in telecommunications. They arise when the benefits from using a network depend on the number of individuals that are connected to the network. Since the number of subscribers determines the number of individuals any particular user can communicate with, any individual’s decision to subscribe or not directly affects the utility for other individuals. However, when deciding upon participation, any particular consumer takes only his own (private) benefits into account. These externalities may lead to an inefficient outcome in an unregulated market and have an adverse effect on the development of the network: Since individuals only take into account their private benefits when deciding whether to join a network, and since their decision generates positive externalities on others, the number of subscribers will typically be smaller than optimal. These inefficiencies may be reduced, through regulatory measures, such as USO, that promote the affordability of access to the network.

This traditional approach relies on a symmetric view of externalities where all subscribers are potentially both callers and receivers. This view is probably of limited relevance for the postal sector, since we have seen in section 2.2 that most mail originates from businesses, with individuals being much more likely to receive mail than to send it. A more modern approach to network externalities is provided by the “two-sided-markets” framework. In this setting, a market is viewed as a platform (intermediary) for exchanges between agents on its two sides. The membership and/or usage on one side of the market affects the utility or profit opportunities on the other side. This gives rise to membership and/or usage externalities that are no longer symmetric.⁹

Beyond providing a justification for certain USO, the fact that the postal sector is a two-sided market also has consequences for its tariff structure, as one of the messages that has emerged from this literature is that “membership fees” on one side of the market may be below cost (or even negative). Interestingly, virtually all postal operators apply a pre-paid mechanism, which goes back to Rowland Hill’s 1840 “uniform penny-postage service” proposal in the U.K. to charge only mail senders, and not directly the recipients. Since most mail is now sent by firms in the context of their commercial relationships with clients, a large fraction of these postal costs are—directly or indirectly—passed through to final customers.¹⁰ Anyway, one could imagine other tariff structures where the recipient would pay directly for part of the postal costs.¹¹ Since frequent delivery at the doorstep is especially costly to the USP, one could imagine having the recipient pay for this service through a yearly membership fee. We will come back to this in section 4.2.

Finally, the postal sector competes with many other markets (for example, electronic communications) for the fulfilment of the need to transfer information from sender to recipient. Senders of information usually use different ways to forward information: this is called a “multi-homing” strategy in the literature on two-sided platforms. The competition from other two-sided platforms has become much more intense in the last years, as we will show in the next section.

3. RECENT EVOLUTIONS WORLDWIDE

The postal sector has undergone two major evolutions recently. We first cover the changes in its organization in Europe and the U.S. We then move to the fall in volumes delivered throughout the world since the mid-2000s.

⁹ In other words, the traditional model of network externalities can be viewed as a special case of the two-sided approach, where externalities are symmetrical.

¹⁰ P. De Donder, H. Cremer, S. Soterii and S. Tobias, “Analyzing the prospects for Business Mail using a sender-recipient framework,” in *Postal and Delivery Innovation in the Digital Economy*, ed. M.A. Crew and T.J. Brennan (New York: Springer, 2015), chapter 25.

¹¹ C. Jaag and U. Trinkner, “Pricing in Competitive Two-sided Mail Markets,” in *Competition and Regulation in the Postal and Delivery Sector*, ed. Michael A. Crew and Paul R. Kleindorfer (Cheltenham, U.K. and Northampton, Mass.: Edward Elgar, 2008), 136-149.

3.1 Changes in ways the postal sector is organized

3.1.1 In Europe

The postal sector in Europe has been shaped by a succession of three EU directives (1997, 2002 and 2008). These directives have gradually liberalized postal services, while maintaining a minimum level of USO. In many countries, before the first directive of 1997, the USP had been granted a monopoly on postal services, and USOs were financed internally. For instance, the requirement that prices be geographically uniform implied cross-subsidies between (costly) rural areas and (cheaper) urban areas.

The directives have set a gradual liberalization process. In a first stage, the USP was allowed to keep “reserved areas,” namely subsets of postal products (delineated at country level within weight/price limits given by the postal directives) where the USP enjoyed a monopoly. The profit made in these areas by the USP would allow it to fund the cost of the USO. In a second stage, these areas were progressively reduced, up to the point where 16 member states had to open their postal markets fully by Dec. 31, 2010; the remaining 11 having completed liberalization by the end of 2012. Some member states (Estonia, Finland, Germany, the Netherlands, Slovakia, Sweden and the United Kingdom) had already fully opened their postal markets ahead of the EU deadline.

Competition in the postal market can take two forms: end-to-end (or infrastructure-based) competition (where competitors undertake all activities of the postal chain, from collection to delivery) or upstream competition, where competitors collect, sort and transport mail, but require access to the USP’s ubiquitous delivery network.

A widely held belief at the time of the adoption of the directives was that competitors needed to access the USP delivery network at (mandated or negotiated) terms, in order to climb the “ladder of investment”—i.e., acquire capital assets progressively as they build up a customer base and revenues. Most of the competition did indeed occur through access, but there is little indication that competitors are moving en masse to end-to-end competition, except in specific areas. The recent experience of the U.K. shows the difficulty of building a sizable delivery network, with the postal firm Whistl suspending deliveries after its private-equity backer, LDC, pulled out of funding to help expand the business. The Dutch-owned company—formerly known as TNT—said it was reviewing the viability of rolling out its delivery service from the areas where it operates. Whistl employs about 2,000 workers in its postal delivery business in parts of London, Liverpool and Manchester in direct competition to the Royal Mail.

With few exceptions, the new competitors emerging from the liberalized market do not open post offices or install letterboxes. Instead, they pick up mail directly at the premises of their customers, which are mostly large corporations. As for mail delivery, they typically deliver only two or three days a week and only in highly populated areas.

The directives have recognized the need for strong and independent national regulators. These regulators have three main objectives. First, they must make sure that the incumbent does not abuse its remaining market power to extract high prices. In most countries,

regulators have imposed some form of price cap on postal incumbents.¹² Second, they must ensure that the incumbent provides good quality access to its competitors at fair prices. Third, they have an obligation to ensure the financial sustainability of the USO. The 2008 directive has indeed acknowledged that the provision of USO entails an “unfair financial burden” for the provider. Among other risks, opening the market to competition, while imposing USO on the incumbent but not on competitors, raises the possibility of cream-skimming, where competitors target the high-density/low-cost areas. The directive then allows for compensation, such as public procurement procedures, public funding, or a shared mechanism between providers of services and/or users. Any claimed unfair financial burden needs to be assessed and approved by the independent national regulatory authority.

It is widely believed that, as the remaining market power of postal incumbents wanes in the face of competition (both postal and, more generally, media), the ex ante regulation will be scaled back and replaced in large part by (ex post) competition policy. Changes are still too recent to confirm or refute this prediction.

The last evolution observed concerns the legal status of the postal incumbents. All national post companies have been transformed from state enterprises into public limited companies. Although EU regulation does not concern public ownership and member states are free to maintain publicly owned postal operators, several countries have chosen to privatize the incumbent postal firm. Deutsche Post is the successor to the German mail authority Deutsche Bundespost, which was privatized in 1995. Austria and the Netherlands have also privatized their national operators, and the most recent case is the privatization of Royal Mail in Britain.

3.1.2 In the U.S.

The postal sector is organized very differently in the U.S.¹³ The United States Postal Service, or USPS, is an independent agency of the United States federal government, responsible for providing postal services in the country. It is one of the few government agencies explicitly authorized by the United States Constitution. It was entirely managed by the U.S. government before 1971. The USPS has exclusive access to letterboxes marked “U.S. Mail” and to personal letterboxes—i.e., it has a monopoly on the delivery of lettermail (although it competes with express-courier and private package-delivery services, such as UPS and FedEx).

On the face of it, there would seem to be much less competition in the postal sector in the U.S. than in Europe. This is true for end-to-end competition, but the USPS has a very long tradition of offering “work-sharing” discounts to those of its customers who pre-sort and transport their mail to a USPS delivery centre. Competition is therefore much less visible than in Europe, but represents a large fraction of the value added by postal services, since

¹² C. Borsenberger, S. Bréville, H. Cremer, P. De Donder and D. Joram, “Price Cap Regulation in the Postal Sector: Single vs. Multiple Baskets,” *Multi-Modal Competition and the Future of Mail*, ed. M.A. Crew and P.R. Kleindorfer (Cheltenham, U.K.: Edward Edgar, 2012), 195-205.

¹³ The following description is taken from Wikipedia, “United States Postal Service,” https://en.wikipedia.org/wiki/United_States_Postal_Service, accessed on October 20, 2015.

roughly three-quarters of USPS domestic mail volumes are work-shared (ranging from 95 per cent for periodicals and advertising mail to 50 per cent for first-class mail).¹⁴

While not explicitly defined, the postal service's USO are broadly outlined in statute and include multiple dimensions: geographic scope, range of products, access to services and facilities, delivery frequency, affordable and uniform pricing, service quality, and security of the mail. While other carriers may claim to voluntarily provide delivery on a broad basis, the USPS is the only carrier with a legal obligation to provide all the various aspects of universal service.

The USPS is under the regulatory purview of the Postal Rate Commission (PRC), both entities being defined in law as independent establishments of the executive branch.¹⁵ The PRC was created by the Postal Reorganization Act of 1970 and has exercised regulatory oversight to set the rates for different classes of mail by holding hearings on rates proposed by the USPS. From 1970 through 2006, the PRC also had oversight authority over the USPS in areas besides rates changes, such as service changes, through its recommendations to the postal governors. The Postal Accountability and Enhancement Act of 2006 (PAEA) made several changes to the PRC, which was renamed the Postal Regulation Commission. The PAEA significantly strengthened the commission's authority to serve as a counterbalance to new flexibility granted to the postal service in setting postal rates. The act requires the commission to develop and maintain regulations for a modern system of rate regulation, consult with the postal service on delivery-service standards and performance measures and prevent cross-subsidization or other anti-competitive postal practices. The law also assigns new and continuing oversight responsibilities to the PRC, including annual determinations of USPS compliance with applicable laws and review of the universal-service requirement. New enforcement tools given to the PRC include the authority to direct the USPS to adjust rates and to take other remedial actions.

Beyond the differences in the way postal sectors are organized on both sides of the Atlantic, they have both been hit recently by a fall in volumes delivered, as we now explain.

3.2 Fall in letter volumes delivered

A new characteristic of the sector has emerged since the mid-2000s: a structural rate of decline in letter volumes. This trend is now present in all countries with advanced postal networks. Part of these declines can be attributed to the worldwide recession, but it has become increasingly clear with time that a large part is due to the advent of electronic substitutes, and that volumes won't return to pre-crisis levels. This new trend has forced postal operators to restructure and adapt their operations.

Figure 3 represents the decline in letter volumes in the five biggest markets in Europe (France, Germany, Italy, Spain and the U.K.) as well as in the U.S.¹⁶ Mail volumes closely

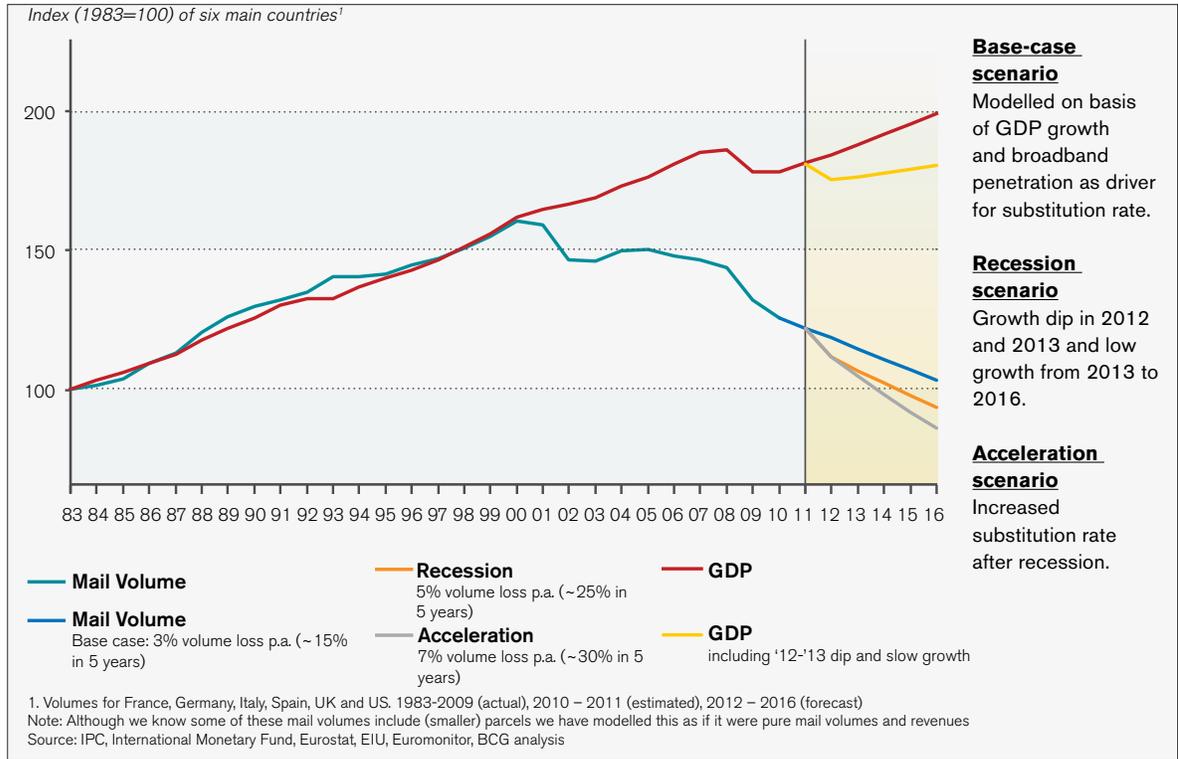
¹⁴ M. Crew, P. Kleindorfer and J. Campbell, *Handbook of Worldwide Postal Reform* (Cheltenham, U.K.: Edward Elgar, 2008).

¹⁵ The following description is taken from Wikipedia, "Postal Regulatory Commission," https://en.wikipedia.org/wiki/Postal_Regulatory_Commission, accessed on October 20, 2015.

¹⁶ Source: International Post Corporation and Boston Consulting Group, "Focus on the Future: Building a new compelling position for posts" (June 2012).

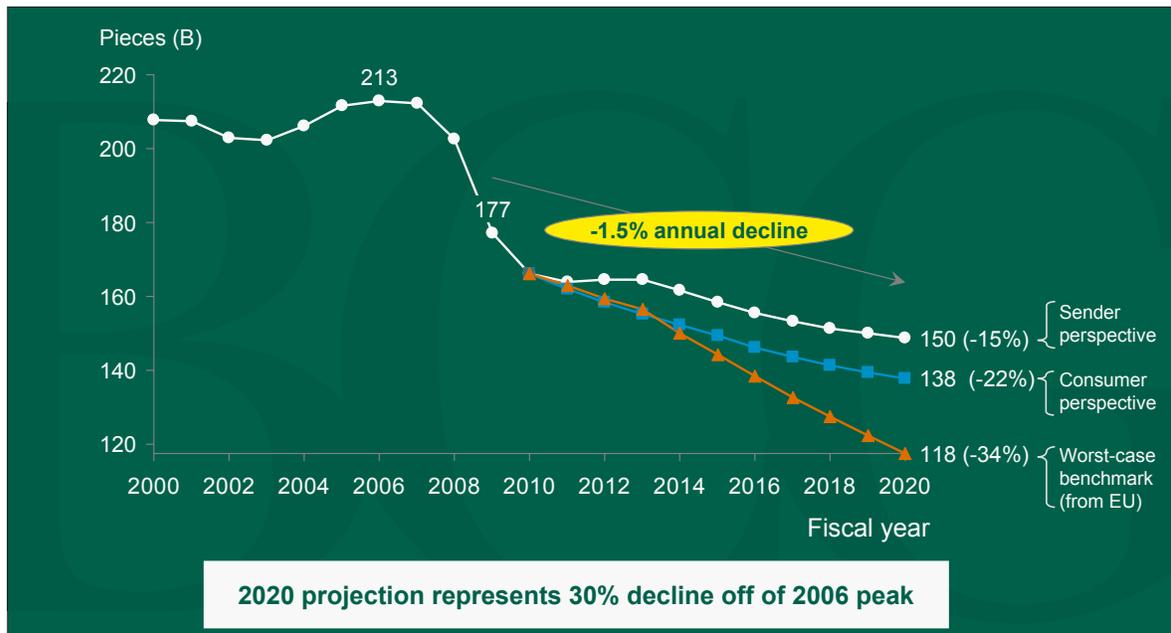
followed the overall level of economic activity (as measured by real GDP) until 2000. Since then, mail volumes have been in quasi-continuous decline.

FIGURE 3 MAIL VOLUME DECOUPLED FROM GDP, VOLUME DECLINE IS ACCELERATING



In the U.S., first-class mail volume peaked in 2001 and has declined 29 per cent from 1998 to 2008. Overall mail volume peaked later, in 2006, and has been in decline ever since. The Boston Consulting Group projected in 2010 further volume declines of at least 15 per cent between 2009 and 2020 (see Figure 4). This has prompted the postal service to look for other sources of revenue while cutting costs to reduce its budget deficit. In 2013, the USPS announced plans to discontinue the delivery of letters and flats on Saturdays, while continuing parcels delivery (“Plan 5+”). However the Consolidated and Further Continuing Appropriations Act reversed the cuts to Saturday delivery.

FIGURE 4 MAIL VOLUME IN THE U.S., ACTUAL (2000-2009) AND PROJECTED (2010-2020)



In Canada as well, the erosion in lettermail volumes has been underway since 2006: while Canada Post Corp. (CPC) delivered roughly five-billion pieces of domestic lettermail in 2006, that number has dropped to roughly 3.8 billion in 2013.¹⁷ This trend has even accelerated in the third quarter of 2014 with a 6.1 per cent drop. Stewart-Patterson et al.¹⁸ forecast a continuous decline in all categories of mail (domestic transactional mail, addressed ad mail, unaddressed ad mail and publications) from 2012 to 2020, with total volumes going down by 26 per cent over these eight years.

There is little doubt now that this downward trend in letter volumes is mainly due to the advent of e-substitution. The most important question for the postal sector is whether this trend will continue unchanged, or even accelerate, in which case the lettermail industry will disappear in a few decades. The more optimistic alternative would see the volumes of mail stabilize, although at a much lower level than their peak. We will content ourselves here with listing the elements in favour, or against, the disappearance of mail.

Any information can now be digitized and sent through telecommunication networks, rather than being printed and mailed. The massive spread of e-substitution has first necessitated general access to the telecommunication networks, mainly the Internet. Broadband access is now generalized, including in sparsely populated Canada: 87 per cent of Canadian households were connected to the Internet in 2013, making Canada the 16th-most-connected country in the world in terms of Internet access. This represents an increase of seven per cent since 2010.¹⁹ This proportion will continue to increase in the near

¹⁷ Canada Post Corporation, 2014 annual report.

¹⁸ D. Stewart-Patterson, V. Gill and C. Hoganson, "The Future of Postal Service in Canada" (Ottawa: Conference Board of Canada, 2013).

¹⁹ Source: Ian Lee, "Is the Cheque Still in the Mail? The Internet, e-commerce, and the future of Canada Post Corporation" (MacDonald-Laurier Institute, 2015).

future, as Industry Canada develops its program to subsidize the extension of broadband to all rural communities over the next five years. At the same time, a broadband connection is necessary but not sufficient for e-substitution to occur, since citizens must also be willing to use these e-substitutes. Recent analysis by International Post Corp. (IPC) and Boston Consulting Group (BCG)²⁰ shows that broadband availability has historically (from 2000 to 2008) had a strong relationship to e-substitution, but that since 2009 current Internet usage has been a better indicator. In other words, now that most people are connected to the Internet, the question becomes how (much more) willing to use e-substitutes people will be in the future. One can observe different trends at work. Demographic trends certainly play in favour of e-substitution, with younger, more Internet-savvy generations replacing older ones. At the same time, rising concerns about Internet piracy and privacy probably mean that a non-negligible fraction of the population will continue to use mail rather than e-substitute, at least for sensitive communication.

Direct marketing (advertising mail) represents a non-negligible fraction of revenues for postal operators (around 20 per cent for CPC between 2012 and 2014 according to the corporation's annual reports). Digital advertising poses a threat to this postal activity. At the same time, physical ads (such as those received by mail) retain some advantages over their digital counterparts, for instance the advantage offered by a ubiquitous postal network, which can guarantee that all households in the country can be reached. Also, digital and paper are not only substitutes, but can also become complementary — for instance, a paper ad enticing customers to connect to the Internet to learn more about a product. More generally, postal operators are busy developing various sorts of hybrid mail, which take advantage of the complementarity between physical and digital media.

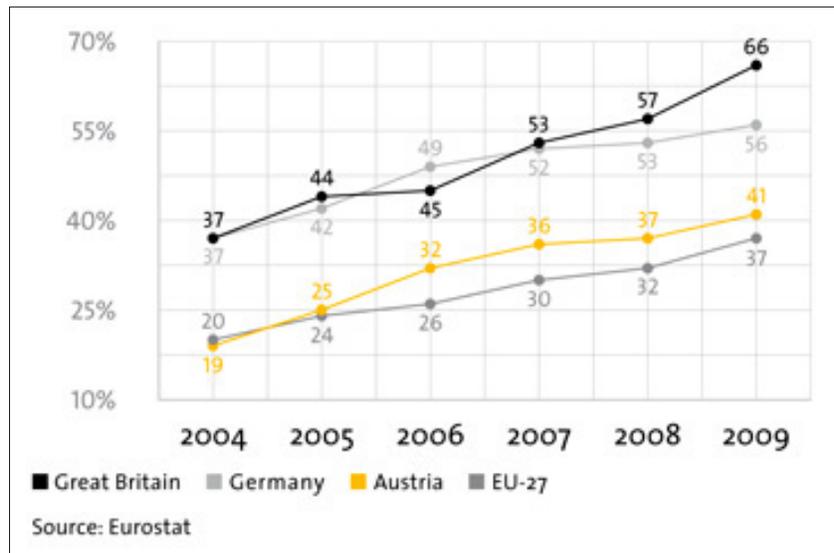
All this being said, it is probable that, even if letter volumes stabilize, they will represent a much smaller level and fraction of the activity of postal operators, thanks to the growth in parcel volumes made possible by the development of e-commerce.

Figure 5 reports the impressive rate of growth in parcel volumes throughout Europe.²¹

²⁰ International Post Corporation and Boston Consulting Group, “Focus on,” Figure 6.

²¹ Downloaded from Austrian Post's website, “The European postal market,” https://post.at/gb2009/en/Postmarkt_Europa.php on October 20, 2015.

FIGURE 5 GROWTH IN PARCEL VOLUMES IN EUROPE



The Universal Postal Union (UPU) reports that lettermail generally remained the chief source of income for posts in 2012—accounting for a worldwide average of 43.9 per cent of revenues. This despite lettermail volumes continuing their downward slide, with total worldwide lettermail traffic declining by an estimated 3.5 per cent to 350.9 billion items. Transactional and advertising mail together represented 71 per cent of CPC revenue in 2014, down from 73 per cent in 2012,²² while parcel share increased from 22 to 24 per cent. So, even if parcel volumes increased 8.1 per cent, they brought in only \$337 million—less than half the \$750 million in revenue generated by lettermail. Canada Post delivers two out of every three parcels in Canada.

The impressive rate of growth from parcels (albeit from a low base), coupled with negative growth rates for lettermail, has IPC and BCG²³ predicting a tipping point where most western postal operators would, by 2020, generate higher revenues from parcels than for lettermail. Unfortunately for those operators, the parcel market is usually much more competitive than the letter market, and the margins made by the postal operators are usually quite small. These trends in volume then represent a clear danger for the financial sustainability of postal incumbents.

We now move to the main part of this paper and present some proposals for reforms of the Canadian postal sector. We will come back in the concluding section to the urgency imposed on the reform of the sector by the declining letter volumes.

²² Source: Canada Post Corp., annual reports, 2015 and 2014.

²³ International Post Corporation and Boston Consulting Group, “Focus on.”

4. PROPOSALS FOR REFORMS OF THE CANADIAN POSTAL SECTOR

We start with a description of the Canadian postal sector, before moving to suggestions for reform.

4.1 The Canadian postal sector²⁴

The Canadian postal sector's organization is much closer to that of the U.S. than to Europe's, combining a government-owned monopoly on the lettermail market with USO requiring it to deliver letters and parcels ubiquitously. The Canada Post Corporation Act (the CPC Act), enacted in 1981, transformed the Post Office Department into a government-owned corporation. As such, it is subject to the Financial Administration Act of 1984, which states that Crown corporations are ultimately accountable, through a minister, to Parliament for the conduct of their affairs. While Canada Post²⁵ has a degree of corporate autonomy, government maintains substantial control: Canada Post is overseen by a chairman and nine other directors who are named by the responsible minister, and the president is appointed by the governor-in-council.

Section 5(2)(b) of the CPC Act specifies for CPC "the need to conduct its operations on a self-sustaining financial basis while providing a standard of service that will meet the needs of the people of Canada and that is similar with respect to communities of the same size." Although mostly silent on how CPC was supposed to attain financial self-sustainability, the act specifically allowed CPC to participate in related competitive markets (such as parcel post) and extend its services to related areas (such as e-post).

The CPC Act confers an exclusive statutory monopoly on Canada Post with respect to the collection, transmission, and delivery within Canada of letters not weighing more than 500 grams. The monopoly is subject to a number of exemptions, including delivery of magazines, books, and electronically or optically transmitted material, and urgent letters subject to a fee at least equal to "three times the regular rate of postage payable for delivery in Canada of similarly addressed letters weighing fifty grams." Work-sharing is less developed than in the U.S., although Canada Post has since 1984 offered clients incentives for pre-sorting their mail (under the commercial name of "incentive lettermail").

The Canadian Postal Service Charter²⁶ contains a description of the USO imposed on Canada Post. They include: the classical ubiquity requirements ("Canada Post will provide a service for the collection, transmission and delivery of letters, parcels and publications. The provision of postal services to rural regions of the country..."); uniform-pricing requirements ("Canada Post will charge uniform postage rates for letters of similar size and weight, so that letters to Canadian addresses will require the same postage, regardless of the distance to reach the recipient."); affordable-pricing requirements; frequent- (five days a week) and reliable-delivery requirements (with speed objectives within communities,

²⁴ The main sources for this section are E.M. Iacobucci, M.J. Trebilcock and T. D. Epps, "Rerouting the Mail: Why Canada Post is Due for Reform," C.D. Howe Institute Commentary 243 (2007); and Lee, "Is the Cheque."

²⁵ We will interchangeably use Canada Post and CPC in the rest of the document.

²⁶ Canadian Postal Service Charter, available at <http://www.tc.gc.ca/eng/mediaroom/infosheets-canadapost-1770.htm>.

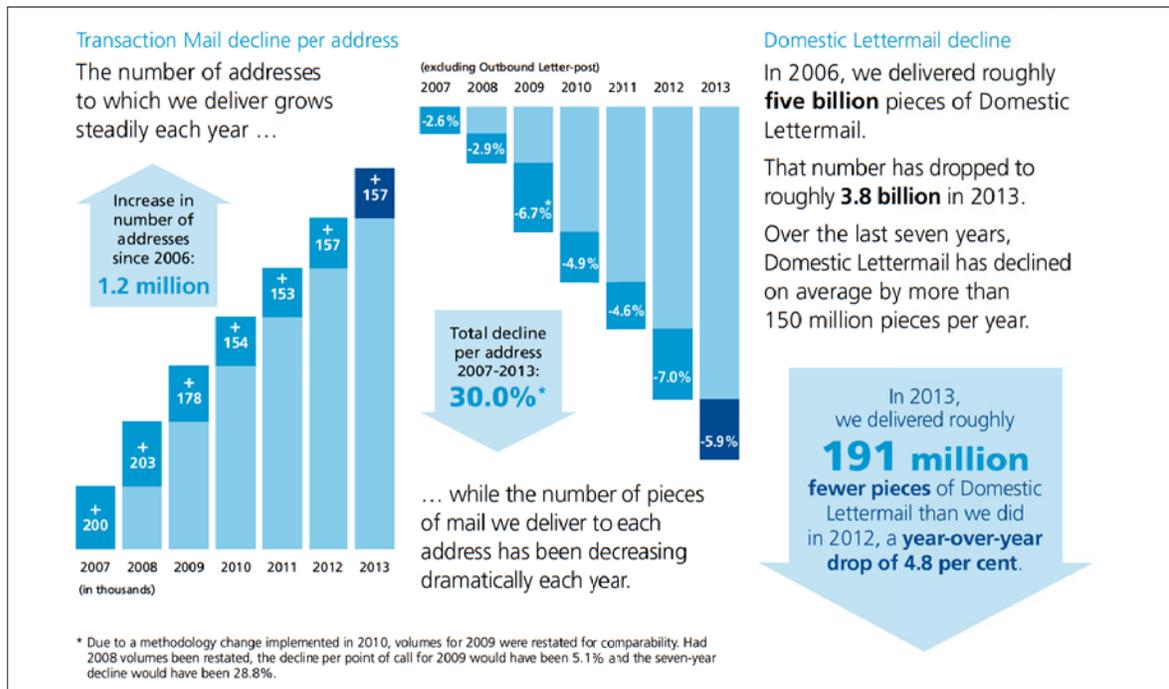
provinces and between provinces); requirements for convenient access to postal services (a post office must be located within 15 kilometers of 98 per cent of Canadians); and other constraints.

In the 1980s, Canada Post was struggling to meet its statutory objectives, and reduced the frequency of mail delivery in rural areas from six to five days, a frequency applied to urban deliveries since 1969. Delivery to businesses was also progressively reduced to once a day. Other steps included converting some post offices to privately owned, franchised operations that offer retail postal services along with other goods and services, and the closure of some post offices. CPC also introduced community mailboxes in new subdivisions, an important move that we will revisit shortly. These measures, while successful at the time to ensure that CPC turned a profit, faced a lot of opposition, especially in rural areas. In 1994, the government declared an indefinite moratorium on closing and/or converting corporately operated post offices in rural Canada. This moratorium is still in place today, with 40 per cent of retail postal outlets currently managed through private-sector dealers.

The 1999 Framework Agreement established a quasi-contractual relationship between the government and Canada Post. The agreement set a five-year timetable to reach stated financial goals and established a price-cap formula for first-class mail that allowed Canada Post to increase the price of a stamp by a rate no more than two-thirds of the increase in the consumer-price index. The government also rejected the 1996 Mandate Review's recommendation to force CPC to subsist from activities in competition with private firms and confirmed that CPC would not be required to divest Purolator, its courier and parcels subsidiary.

By the time CPC produced its next strategic review, in 2008, it had been generating a profit for 13 straight years. At the same time, we detailed in section 3.2 how Canada Post has been facing falling mail volumes, like its counterparts all over the developed world. These falling volumes are likely to continue into the near future, as the business and government sectors, which account for 90 per cent of Canada Post's lettermail and addressed ad mail volumes, have strong incentives to adopt electronic alternatives. Compounding the problem of volume erosion is the fact that, while mail volumes are decreasing, the number of addresses in Canada is rising by approximately 240,000 per year (see Figure 6 below). Canada is unique among western nations in that it has to face both trends at the same time, resulting in large decreases in average volume delivered by addressee (of the order of five to seven per cent per year between 2009 and 2014, according to CPC's 2014 and 2015 annual reports).

FIGURE 6 TRANSACTION MAIL DECLINE PER ADDRESS



To adapt to these trends, CPC asked the government in 2008 for more freedom in setting its prices. In January 2011, the government dropped the constraint that limited price increases to two-thirds of the growth in the Consumer Price Index, although rates remained under direct government regulation, despite CPC asking that its board of directors be authorized to set pricing.

Canada Post was able to cope with the impact of falling mail volumes through incremental efficiencies and price increases, but fell into deficit in 2011 after 16 profitable years. The CPC’s action plan of December 2013 (following the Conference Board of Canada’s report earlier that year) contained five main initiatives to return to financial sustainability by 2019: (i) raising prices for lettermail; (ii) moving from door-to-door delivery to community mailboxes; (iii) streamlining operations; (iv) franchising postal outlets, which have been under a continued moratorium since 1994; and (v) addressing the high cost of labour. We now cover these five proposals in turn.

The first one concerns the pricing flexibility required by CPC. Beyond increases in rates, CPC seeks the ability to set differentiated rates, according both to the type of customer (business, individual, mailer) and volume (single stamp, stamps in booklets and coils, meters).

Regarding the community-mailbox proposal, Canada is quite unique in its low proportion (32 per cent in 2014) of door-to-door delivery. As shown in Table 1, this is due in large part to the large proportion (27 per cent) of community mailboxes, generalized since the mid-1980s, as well as the large proportion of individuals collecting their mail from a centralized point (25 per cent). Table 1 shows that delivery to community mailboxes would cut annual cost per address by more than half, compared to door-to-door delivery. CPC estimates

that it would save approximately \$500 million annually from transferring all Canadians to community mailboxes. Note that this was a decision made by CPC. Lee²⁷ states: “one can argue that it needed the government’s approval for this and, indeed, the government did not direct the corporation otherwise. Community mailboxes were introduced in a similar way in the mid-1980s. No formal approval was required but the government supported CPC’s decision as within its operational freedom to manage the postal service. But it is critical to note that CPC is not governed by any formal policy to deliver door-to-door service as part of any USO commitment (including what is defined in the Canadian Postal Service Charter).” Finally, as mentioned in footnote 3, Canada Post has just announced that it has put its plans to move to community mailboxes on hold as of November 2015, in light of the campaign promise of the newly elected Liberal government to keep door-to-door delivery where it still exists.

TABLE 1 CPC DELIVERY IN CANADA, 2014.

Delivery method	Number of addresses	Percentage of addresses	Average annual cost per address
Door-to-door	4,980,959	0.32	\$289
Centralized point	3,957,753	0.25	\$119
Community mailbox	4,255,859	0.27	\$111
Delivery facility	1,768,848	0.11	\$58
Rural mailbox	713,642	0.05	\$189
Total	15,677,061	1.00	\$167

Source: Canada Post Corporation, Annual Report 2014, page 35.

The third initiative, streamlining operations, concerns (among other things) the processing plants. Decreases in letter volumes, together with the advent of new and more efficient mail-sorting technologies, probably make redundant several of the 21 plants currently active across the country.

As regards the fourth CPC proposal, lifting the moratorium on franchises, Stewart-Patterson et al.²⁸ have found that franchises cost one-third as much to run as corporate offices in urban areas. Lee²⁹ reports: “the average revenue in an urban office is about three times that of a typical rural office according to data CPC submitted to the Strategic Review in 2008. If you can save two-thirds of your average cost per post office, that represents an enormous savings. The cost savings from franchising are profound and will be greater with rural outlets than they have been with urban ones.”

This leads us naturally to the fifth point raised by CPC, namely its labour costs. CPC’s 2014 annual report states that “the Canada Post Group of Companies is one of Canada’s largest workforces, with 65,000 people, including 14,000 among its subsidiaries.”³⁰ Figure 7 reports the 2014 workforce by type.³¹ Observe that about half of CPC’s total workforce is involved

²⁷ Lee, “Is the Cheque.”

²⁸ Stewart-Patterson, Gill and Hoganson, “The Future,” 41.

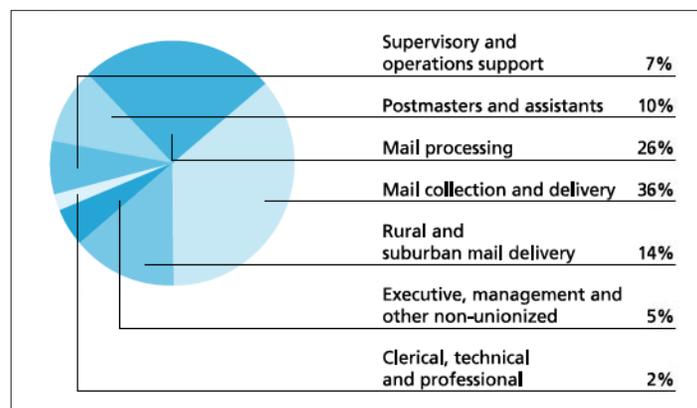
²⁹ Lee, “Is the Cheque,” 20.

³⁰ Canada Post Corporation, 2014 annual report, 55.

³¹ Source: CPC 2014 annual report.

in collecting and/or delivering mail. Labour (including benefits) represents about 70 per cent of total costs.

FIGURE 7 CPC WORKFORCE BY TYPE OF WORK



Labour issues have long posed a specific challenge for Canada Post. As reported by Lee,³² “Throughout the 1970s, labour disruptions revealed increasing union-management conflict, which in turn led to dissatisfaction among citizens and elected officials. Strikes concerning wages and job losses due to automation occurred on a regular basis.” The labour climate improved later on, with no significant strikes in the decade leading to 2008. More recently, labour unions have criticized the move to terminate the moratorium on franchising post offices. The moratorium (instituted in 1994 by the Chrétien government, renewed by the Harper government, and mentioned in the Canadian Postal Service Charter in 2009) “names certain corporately operated post offices (over 3,500 post offices mostly located in rural Canada) that cannot be closed or moved. CPC’s corporately operated post offices are staffed by two bargaining groups (Canadian Postmasters and Assistants Association [CPAA] and Canadian Union of Postal Workers [CUPW]). CPAA staffs about 3200 offices mostly in rural and small-town locations. The vast majority of these offices are on the moratorium list. In addition, CUPW operates 495 post offices. The current moratorium conditions as well as the minimum number of CUPW-staffed outlet provisions (defined in the CUPW collective agreement) would need to change to leverage further franchising opportunities.”³³

CPC³⁴ shows that the majority of its employees are over age 50. This in turn means that the measures considered above (decreasing delivery frequency, moving from door-to-door delivery to community mailboxes, franchising of postal outlets) could be accomplished, at least in large part, through attrition rather than layoffs.

We now cover four different domains where we advocate changes in the Canadian postal sector: a rethinking of the USO, setting up an independent regulator, the introduction of competition, and privatization.

³² Lee, “Is the Cheque.”

³³ *ibid.*, 27.

³⁴ Canada Post Corporation, 2014 annual report, 4.

4.2 A rethinking of postal USO

USO are imposed in postal markets all over the world. Given their ubiquity and the fact that they generate (efficiency) costs by distorting the functioning of the market, one would think that their rationale is well established, and that numerous studies have balanced their costs and benefits. Unfortunately, this is far from true. The final objectives of the USO are rarely stated precisely, so it is difficult to assess whether these objectives are attained with the USO imposed. For instance, the 2008 EU directive mentions “the objectives of social, economic and territorial cohesion in the Union.” The benefits of the USO are rarely evaluated quantitatively, and thus cannot be compared to the costs they generate. Finally, there is a crying need for studies that would assess whether USO are the best instruments to attain those objectives.³⁵

For instance, although Europe has thoroughly revised its approach to the postal sector for the last 20 years, the very idea of universal service has remained relatively uncontested during the early stages of the liberalization process. The debate was not that much about the appropriate extent of the USO but about the most efficient (or least costly) way to make the obligations competitively neutral, or at least as compatible as possible with competition.

In this section, we sequentially cover several aspects of USO, starting with pricing requirements, and moving to ubiquity of coverage, delivery-frequency minimums, and minimum quality standards. We then mention the necessity to assess the indirect costs of USO, as when they hinder the functioning of a competitive market. We end up this section by discussing Canada Post’s decision to put an end to door-to-door delivery, and the need for USO at the telecommunication level, rather than at the postal level.

USO consist in offering a minimum package of services throughout the territory (ubiquity), with a minimum quality and at affordable prices. The uniformity of prices is often added to this list of requirements. We argue elsewhere³⁶ that USO are first and foremost a constraint on pricing, since the obligation to provide service without an affordable-pricing requirement would be an empty constraint. The main rationale for the USO is, then, redistribution through prices, which are not set strictly according to efficiency considerations.

Observe that USO may imply two types of redistribution. First, towards high-cost customers (such as single-piece mail users) or addressees (such as rural households). This is achieved through uniform pricing, or whenever price differentials (between consumer groups) fall short of cost differentials (which are mostly driven by the addressee’s location and type —i.e., urban versus rural and business versus household—but also by the distance between sender and recipient).

³⁵ This is true to some extent for all network industries but even more so for the postal sector. Exceptions are: H. Cremer, M. De Rycke and A. Grimaud, “Cost and benefits of universal service in the postal sector,” in *Managing Change in the Postal and Delivery Industries*, ed. M.A. Crew and P.R. Kleindorfer (Boston: Kluwer Academic Publishers, 1997); H. Cremer, F. Gasmi, A. Grimaud and J. J. Laffont, “Universal service: an economics perspective,” *Annals of Public and Cooperative Economics* 72 (2001), 5-43; H. Cremer, P. De Donder, F. Boldron, D. Joram and B. Roy, “Social costs and benefits of the universal service obligation in the postal market,” in *Competition and Regulation in the Postal and Delivery Sector*, ed. M.A. Crew and P.R. Kleindorfer (Cheltenham, U.K.: Edward Edgar, 2008), 23-35.

³⁶ Cremer et al., “Social costs.”

Second, there may be redistribution towards low-income (or otherwise needy) individuals. An example would be a social tariff (as in telecommunications or electricity). In the postal sector, the first aspect appears to be the most relevant. However, in reality, cost and income may be correlated, with low-income people more likely to live in rural areas, for instance. When viewed as redistributive pricing, USO bear some similarities with policies involving “public provision of private goods” or in-kind transfers. The basic feature of these policies is that some essentially private goods—such as education, child care or health care—are provided either free of charge or at (sometimes highly) subsidized prices.

Even if a case can be built in favour of redistribution through postal prices,³⁷ it is important to compare the benefits generated by this obligation with its costs. The benefits generated are probably quite small. First, postal expenses are usually a very small part of consumers’ budgets. This remains true if we explicitly take into account how firms pass through their postal costs to customers (for instance by adding the part of banking or insurance fees that cover the postal costs of those firms).³⁸ Second, the redistribution attained is far from perfect. Take the simplest example, where agents live in rural and urban areas, with much higher (delivery) postal costs in the former areas. A uniform-pricing constraint then represents a transfer from urban to rural customers. Such a transfer may be in line with a government’s objective to favour rural dwellers (whether for country planning or purely electoral considerations), but it will also benefit rich rural inhabitants at the expense of poor urban ones, which is an unfortunate characteristic. A direct transfer to poor rural inhabitants would help them live in remote areas without being regressive, and would thus be preferable. Also, the legislature can have a proper debate and determine the socially optimal size of these transfers, rather than having them determined by the amount of postal products bought by different types of consumers.

At the same time, it is well known that an efficient allocation of resources requires prices to be in line with costs. Redistributive prices then generate efficiency costs, which should be evaluated and compared to the benefits described above.

Another facet of the USO is the ubiquity of coverage. This obligation is easy to understand and is often rationalized with the objective of helping national unity by enhancing social communications. One might wonder whether the free functioning of the market would not naturally lead to ubiquity of coverage. After all, one important commercial argument in favour of postal communications is definitely that, unlike other forms of communication, it can reach all households and firms in a country. One might also wonder whether an unconstrained, commercially oriented postal operator would choose not to cover one part of the country, since this move would destroy part of its comparative advantage compared to other communication methods. In other words, the ubiquity part of the USO may not actually be a binding constraint on the operator. The two-sided characteristic of the postal sector may also help us ascertain whether postal operators would spontaneously offer full

³⁷ We study in Cremer et al., “Social costs,” the circumstances under which the USO can be an optimal second-best policy (i.e., an efficient way to redistribute resources when policy-makers do not have the necessary information to implement more efficient policies such as direct transfers), especially within the sender-pays context of the postal sector.

³⁸ In France, direct annual costs per household are estimated to be about 68 euros, while the indirect costs are of the order of 425 euros—see Cremer et al., “Social costs.”

coverage of the territory or not. A USO may then be efficiency-enhancing when a profit-maximizing postal operator spontaneously sets a degree of coverage that is too low from a social perspective.³⁹

An unconstrained, commercially oriented postal operator would probably choose to drastically decrease the frequency of delivery in the most remote parts of the country. The fact that USO impose the same minimum delivery frequency (usually, five times a week) all over the country is then most probably a binding constraint for the USP. For instance, as mentioned in section 4.1, Canada Post has decreased its delivery frequency to five days a week in rural areas. From an economic viewpoint, it makes sense to have lower delivery frequencies in areas where costs are higher, and where volumes are lower (as urban consumers tend to receive more mail than rural ones). Minimum delivery frequencies not only impact the size of costs, but also their nature. As explained in section 2.1, they transform delivery costs (essentially labour) into fixed costs. These fixed costs in turn make it more difficult for the USP to react to competition. In that sense, minimum delivery frequencies can prove especially detrimental to social welfare, especially if pushed too high.

USO also embody minimum quality requirements in the form of a minimum proportion of mail that has to be delivered within a given amount of time (one or three days after collection). One can wonder whether the benefits generated by minimum quality requirements are commensurate with the costs they generate. First, even if it is well known that markets (whether organized as monopolies or oligopolies) do not spontaneously provide the optimal quality mix, the observed bias is not always in the direction of low qualities, as firms can choose a level of quality that is too high from a social viewpoint, in order to dampen price competition.⁴⁰ Second, even if the quality offered spontaneously on the market were too low, the introduction of minimum quality constraints is not always welfare improving, because of its impact on other dimensions of competition, such as price competition. Third, even if a low enough minimum quality constraint may be welfare-improving, the constraint can also be set at a level that is too large compared to what consumers would want.

There is some suspicion that it is the case in Canada. A survey reported in Stewart-Patterson et al.⁴¹ indicates that Canadian residential and small business customers are willing to tolerate slower service than they now receive. What matters most to customers is the certainty that mail will be delivered to its intended destination. This raises a fourth issue with minimum quality standards: USO may regulate the “wrong” aspects of quality, namely frequency delivery, rather than the certainty that the mail has been received after a certain period. One can wonder whether setting a high delivery frequency together with a high minimum service speed is a form of paternalism where the public authority deems to enforce higher standards than those the market would spontaneously offer. If that is

³⁹ See Cremer et al., “Social costs.”

⁴⁰ See C. Crampes and A. Hollander, “Duopoly and quality standards,” *European Economic Review* 39 (1995): 71-82.

⁴¹ Stewart-Patterson, Gill and Hoganson, “The Future.”

the case, then one needs a compelling argument for this paternalism.⁴² One should keep in mind that there is another explanation for high minimum quality obligations, that is of a political economy nature. For instance, some European postal workers are among the most ardent supporters of these requirements (especially the obligation to deliver a large proportion of first-class mail the day after it has been collected) because they necessitate sorting during the night, which is paid for at a premium by the employer. If that is the case, then current minimum quality obligations are probably set too high from a social viewpoint.

An indirect cost of certain USO is that they hinder competition. USO are usually imposed on a single operator. Competitors are allowed to offer products on a subset of routes. In order to make their offer attractive, competitors need access to the USP's ubiquitous delivery network, as explained above. This means that competitors can cherry-pick the low-cost/high-volume areas, where they can offer products cheaper, than they deliver themselves, than those offered by the USP (especially if the latter is required to practice geographical equalization of prices, as in Canada) and ask for access to the USP delivery network elsewhere. This cherry-picking and the risk of an ensuing "graveyard spiral" for the USP (which would have to increase its prices across the board to break even, generating new rounds of entry on marginally profitable routes, thereby making its financing problem even more acute) have long been held (especially in Europe) as the main obstacle to opening the whole postal market to competition. If USO prevent a market opening to competition, one has to consider all the unrealized benefits of competition when weighing the pros and cons of USO.

It is worth noting, in the Canadian context, that the constraints imposed on delivery do not imply that delivery has to be made door to door. As explained in section 4.1, only one-third of customers (roughly five-million addresses) benefit from door-to-door delivery, while the remaining two-thirds are served by delivery to centralized points, group mailboxes, delivery facilities, and rural mailboxes. Community mailboxes have been the norm in new subdivisions since the mid-1980s. One may wonder whether moving from door-to-door delivery to group mailboxes is a welfare-improving move for the country. It is certainly correct that door-to-door delivery is expensive, as shown in section 4.1. But observe that it is in dense urban settings that this cost disadvantage is the least pronounced (not only because of the higher density of addresses, but also because urban addresses tend to receive more mail than do rural ones, so postal carriers rarely have to travel far between two deliveries). It is also in urban areas that the space taken by group mailboxes is the most socially costly. This has to be taken into consideration when moving from one technology to the other, even if the postal operator does not have to pay these costs.

Finally, it is important to take into consideration the benefits generated by door-to-door delivery, in the form of the willingness to pay for this service. One insight of the literature on two-sided markets is indeed that one should carefully consider which side of the market (senders or recipients) should pay for usage, but also for membership in the network. It may be the case that a sizable fraction of urban recipients would be ready to pay an annual fee in

⁴² For a study of the quality and pricing of delivery services in the e-commerce sector, see C. Borsenberger et al., "Quality and Pricing of Delivery Services in the E-commerce Sector," in *Postal and Delivery Innovation in the Digital Economy*, ed. M.A. Crew and T.J. Brennan (New York: Springer, 2015).

order to continue receiving their mail at home, rather than having to travel to some distant group mailbox. Such an opportunity should be evaluated when weighing the pros and cons of door-to-door delivery. One could imagine offering a menu of contracts to recipients, with a higher price (in the form of a yearly membership fee, for instance) for door-to-door delivery, and a lower (or nil) price for delivery to community mailboxes. The price for door-to-door delivery should reflect the additional cost that this delivery method imposes on CPC, compared to delivery to community mailboxes. Finally, we observe that moving away from urban door-to-door delivery in Canada seems to contradict what postal operators have been doing in Europe, which is to leverage the opportunities offered by the very fact that carriers are in daily contact with a large fraction of the population, at the doorstep.

To conclude this section, one has to take into account technological evolutions when setting USO. Postal USO have remained unchanged for a long time in most countries, and have not adapted to the fast pace of technological progress in telecommunications. It is time to rethink these USO in this light. For instance, the need to communicate with all residents of the country may sometimes be achieved more effectively with communication technologies other than mail, especially in the most remote areas. This raises the question of whether USO should be imposed at the level of communications in general, rather than separately for mail and for (mobile) telephony, for instance, with access to mobile connectivity superseding letter delivery at home everywhere. This point is especially relevant for a sparsely populated country like Canada. It is also in line with the federal government's pledge, in its rural Canada broadband strategy, to help the 13 per cent of (mainly rural) Canadians without high-speed Internet to gain access within five years. To push the argument to its limit, one can wonder about the rationale of the (costly) ubiquity requirement for postal services in a population where everyone already benefits from Internet access. Unfortunately, there is as yet little economic literature on this subject.⁴³

4.3 Setting up an independent regulator

Even though the U.S. and Europe have taken widely different paths to modernize their postal sector, a common evolution on both continents has been the setting-up/beefing-up of independent postal regulators. It is clear that, even in European countries where the postal markets have been fully opened to competition for some years, the former incumbent retains a very strong position in its market. End-to-end competition has been quite limited, except in very specific geographical markets. The recent folding up of Whistl in the U.K. shows how frail the “ladder of investment” experience has been in the postal sector. With competitors needing access to its delivery network, the incumbent retains a large amount of market power.⁴⁴

In this section, we first make the point that setting up an independent regulator is a necessity for the postal sector, even in case of public ownership of the postal incumbent. We then discuss the scope of this regulator (which could be set at the postal or

⁴³ A notable exception is A. Gautier and J-C. Poudou, “Reforming the Postal Universal Service,” *Review of Network Economics* (in press, 2015), <http://orbi.ulg.ac.be/handle/2268/149733>.

⁴⁴ An alternative would be to rely exclusively on competition law—i.e., on ex post regulation. This may be the ultimate objective of European policy, but the development of competition in the postal market does not seem sufficiently advanced at this stage to get rid of ex ante regulation—yet.

telecommunication level), before moving to the regulation of postal prices (both final and access prices). Finally, we turn to the non-tariff-related aspects of regulation, including the incentives to cut costs and the compliance with USO.

The U.S. and many European countries have made the choice of retaining (at least partial) public ownership of the incumbent postal operator. This is of course also the case for Canada. Even in that case, setting up an independent regulator is a necessity. The experience of recent decades has shown, especially in Europe, that it is most difficult for a government to separate its role as an owner from its role as a regulator. With the postal operator providing a potential source of funds for the federal budget,⁴⁵ it is very tempting for a government to turn a blind eye on any competitive abuse by the postal operator in order to maximize the financial proceeds obtained as dividends. The monetary benefits the government obtains from any abuse of dominance by the postal firm would be very visible in the government treasury, while the costs to the whole economy that the abuse creates are diffuse and difficult to measure. Governments also perform under electoral deadlines. They may be tempted to time their action according to the political cycles, rather than in line with the long-term benefits for the nation. Separating the ownership of public corporations with some level of market power from the regulation of them can decrease, if not suppress those temptations. We also argue later on in this section that the regulator should be given the task of monitoring adherence to the USO, and to gather the data that would allow a computing of the costs and benefits of these USO in order to better inform the choice of the optimal level of the USO.

An interesting question is that of the optimal scope of the regulator. The regulator could be devoted exclusively to the postal sector, or be more generally concerned with the (tele) communication sector. While the U.S. has a regulator focused exclusively on the postal sector, European countries have, in large part, opted for regulators with a broader purview. Many arguments are in favour of the latter solution. First, postal operations are increasingly coming into competition with telecommunication activities, and a regulator encompassing both industries can more easily take all those relationships into account. Second, some problems are really better considered from a transversal viewpoint: for instance, it is definitely worth considering imposing USO on the whole communication sector, including telecommunications and the postal sector, rather than separately on its components, as argued at the very end of section 4.2. Third, the expertise on the postal sector is far less widely disseminated than that on telecommunications, and setting up a regulator with a broader purview may allow it to optimally use its scarce intellectual resources, in a static perspective, to help develop a truly postal expertise in a more dynamic perspective. The only drawback of a unique regulator for postal and telecommunications is the risk of applying to the former sector ready-made solutions and procedures developed for the latter, without taking into account the specificities of the postal sector. This is a risk that has to be taken into account, but the European experience shows that many regulators have managed to reap the benefits of a single telecommunication regulator without falling prey to that prejudice.

⁴⁵ As noticed by CPC in its 2008 strategic review, “the Corporation has produced ... more than \$1 billion paid to the Government in the form of revenue from taxes, dividends and return of capital.”

We now move to how the postal operator should be regulated, starting with its pricing decisions. Industrial organization has for a long time studied how to regulate firms with market power (see the seminal work by Laffont and Tirole,⁴⁶ among others). A characteristic of network sectors is the presence of a large fixed cost corresponding to the setting-up and maintenance of the network. We have seen in Section 2.1 that the postal “network” has two specificities: first, it is made mainly of people, rather than capital investment; and, second, it is due in large part to the imposition of USO (such as the obligation of providing ubiquitous delivery at a minimum frequency) complemented by constraints on the labour contracts. In this context, the objective of the regulator should be to induce the regulated firm to post welfare-maximizing prices under the constraint that the firm is to break even. These prices, called Ramsey-Boiteux prices (after the seminal works of Ramsey⁴⁷ and Boiteux)⁴⁸ have been intensively studied by the industrial organization literature, with applications to many industries. An important characteristic of these prices is that they depend on the sensitivity of demand to prices. This in turn calls for differentiated prices across postal products, even across products sharing the same production costs, provided that their demand characteristics are different. This is important to realize, because regulators have more often than not been skeptical, if not opposed to, price differentiation. This argument also shows that the uniformity of prices, often imposed as part of the USO, does have efficiency costs.⁴⁹

How can a regulator induce the regulated firm to post these Ramsey-Boiteux prices? By imposing a price cap on the firm, where the firm would otherwise be free to choose its prices, provided that a weighted average of these prices does not exceed a cap. By adequately choosing the weights as well as the cap, the regulator can induce a profit-maximizing firm to choose the socially optimal set of prices. This regulation formula is surprisingly general and robust to many variations. For instance, Borsenberger et al.⁵⁰ show that it is robust to the introduction of uncertainty on the future demand for postal products, and remains the optimal regulatory formula even when the government puts different weights on different types of consumers (such as firms and households, for instance). It is worth noting that the formula should include all products sold by the firm, including its access products (in other words, the rebates accorded to the mailers who pre-sort the mail delivered by the USP).

The exercise of market power may take forms other than high prices. The firm may, for instance, have insufficient incentives to lower costs. The literature on regulation has been aware of this for a long time, and has studied how to induce firms to be cost efficient.⁵¹ It is worth stressing that firms usually have much more information (both on their costs and on the demand they face) than do governments. Delegating the task to regulate a sector to an independent entity allows the regulator to bridge part of this gap, by tapping into

⁴⁶ J.J. Laffont and J. Tirole, *A Theory of Incentives in Procurement and Regulation* (Cambridge, Mass.: MIT Press, 1993).

⁴⁷ F. Ramsey, “A Contribution to the Theory of Taxation,” *Economic Journal* 37 (1927): 47-61.

⁴⁸ M. Boiteux, “Sur la Gestion des Monopoles Publics astreints à l’Equilibre Budgétaire,” *Econometrica* 24 (1956): 22-40.

⁴⁹ See P. De Donder, H. Cremer, J.P. Florens, A. Grimaud and F. Rodriguez, “Uniform Pricing and Postal Market Liberalization,” in *Future Directions in Postal Reform*, ed. M. Crew and P. Kleindorfer (Boston: Kluwer Academic Publishers, 2001), 141-163.

⁵⁰ Borsenberger et al., “Price Cap.”

⁵¹ See Laffont and Tirole, *Competition*, for an application to the telecommunication industry.

the expertise of a select group of people with specific knowledge of the industry, which is another reason to favour setting up a regulator. But this asymmetry of information will not disappear even with the best-informed regulators. A consequence, as shown by Laffont and Tirole,⁵² is the necessity to leave some rents to the regulated firm, in order to induce it to cut costs.

The regulator should also devote resources and attention to the USO. First, it should monitor whether the regulated postal operator complies with all USO. This requires yearly measures of the performance of the firm, such as for instance the proportion of mail of different classes delivered within a set period to different parts of the country. It is important that these measures be taken by an independent party, and not solely by the postal operator. Second, the regulator would be best placed to provide the elements necessary to compute the (private and social) costs of the USO. The private costs of the USO are the profitability costs for the operator of having to fulfil those obligations, such as the cost of maintaining a delivery network throughout the country, with a minimum delivery frequency. The social costs are more complex to compute, because they are not borne directly by the regulated firms, but by other actors, competitors and customers. For instance, USO create fixed costs, which require prices to be higher than they would be otherwise. Or, uniformity of prices results in misallocations, since prices cannot reflect marginal costs. USO also create social costs when they prevent competition from occurring, for instance when the existence of USO and the necessity to fund their costs results in the creation of “reserved areas” for the USP, where no competition is allowed. An important objective given to the regulator should be to provide the authorities with the best estimates of the (direct and indirect) costs of the USO in order to allow these authorities to ascertain whether these costs are the most cost-effective ways to attain the authorities’ stated objectives (be they redistribution, national cohesion, coping with network externalities, etc.), and in the case of a positive answer, to decide upon the optimal extent of the USO, and to assess their compatibility with the opening of the postal market to competition.

Setting up an independent regulator is, of course, no panacea. There is a tension between the necessity of staffing the regulator with people knowledgeable about the regulated industry, and the proximity between regulator and industry. People who staff the regulator do not spend their entire career there, and the “revolving door” phenomenon gives them incentives to be lenient with the regulated firms. In other words, there is the risk of “regulatory capture” by the regulated industry.⁵³ And, because of asymmetric information, even the best-informed and best-run regulator cannot replicate the results that would have been obtained in a perfectly competitive setting. But since such a setting is anyway unattainable in the postal sector (because of USO, the existence of fixed costs, etc.), setting up an independent regulator is very complementary to the introduction of competition, to which we now turn.

⁵² Laffont and Tirole, *Competition*.

⁵³ See J.J. Laffont and J. Tirole, “The politics of government decision-making: A theory of regulatory capture,” *Quarterly Journal of Economics* (1991): 1089-1127.

4.4 The introduction of competition

Ever since Adam Smith, economists have been studying the benefits created by competition, which is at the root of the “invisible hand” guiding markets toward the maximization of social welfare. Competition has both static benefits (pushing prices toward marginal costs) and dynamic benefits (inducing firms to cut costs and to be on the lookout for new products). There is no doubt that some competition is beneficial in the postal market. At the same time, the very characteristics of the postal markets, and not the least the USO, prevent this market from being purely competitive, with a large number of firms competing for the patronage of an equally large number of consumers. The rule of the game in organizing the postal market is then to allow for the maximum amount of competition compatible with the financial viability of the socially optimal level of USO.

We have seen that competition takes two forms in the postal sector. Competition is called “upstream” when it concerns the collection, sorting and transportation of mail. This form of competition happens on both sides of the Atlantic, although it is called “work-sharing” in the U.S. and “access competition” in Europe (since competitors need access to the incumbent’s delivery network). Two things are remarkable with upstream competition. First, it happens even when the law endows the incumbent with a monopoly on delivery, as in the U.S. or Canada. In that sense, the postal sector in the U.S. has benefited a lot from competition, since work-sharing represents three-quarters of domestic mail volumes. Second, work-sharing is provided both by customers of the incumbent postal operators (such as large firms, banks, insurance companies, etc.) and also by competitors (namely, firms that specialize in the activity of collecting, sorting and/or transporting mail to the delivery premises of the incumbent). The U.S. work-sharing industry is very lively, and has allowed the postal sector to be very competitive for these activities. Canada Post has offered clients incentives for pre-sorting their mail (“incentive lettermail”) since 1984.

End-to-end competition, which includes delivery as well as the upstream activities, is much less common, for several reasons. First, it can be downright forbidden, as in the U.S. and Canada. Second, even in countries where downstream competition is allowed (as in the European Union), it rarely occurs throughout the country. Delivery costs vary a lot across geographical areas, mainly as a function of their density and of their topological characteristics (mountains, enclaves, etc.). Competitors can choose to “access” or “bypass” the USP delivery network, comparing for each area their delivery costs with the USP’s, and choosing the least expensive.

Letting the competitor choose where to deliver and where to access the incumbent’s delivery network would improve social welfare if the incumbent’s prices reflected the social costs of these activities. In that case, the competitor would provide its own delivery in areas where its delivery costs are lower than the incumbent’s, and would use the incumbent’s delivery network where the latter is more cost effective. But the incumbent’s prices rarely perfectly reflect its marginal upstream and downstream costs, for at least two reasons. First, the requirement to break even, coupled with the existence of fixed costs (in large part due to USO), requires the USP to post a mark-up over its marginal costs. Second, the USO often incorporates an obligation to post uniform prices. When USP prices are not fully in line with marginal costs, the decision by competitors to access or to bypass the USP delivery network need not be socially optimal. Especially, with uniform prices, the competitors are

induced to cherry-pick and to deliver in low-cost (urban) areas while accessing the USP network in high-costs (rural) areas. This may create a “graveyard spiral,” where the USP loses its high-margin delivery areas but retains the areas where its delivery cost is high, forcing it to increase its price across the board (if subject to uniform-pricing requirements) and creating a new wave of competitors able to bypass the USP. In other words, uniform pricing and end-to-end competition do not get along well with each other, and governments would do well to reassess the need to impose uniform-pricing requirements if they want to reap the benefits from end-to-end competition.

The dangers of selective access and of cherry-picking have to be taken into account when setting the access-charge level. The experience of the U.K. is very instructive. There are two pricing options for access, based on delivery coverage: National access and Zonal Access. National Access pricing provides a uniform access price (according to item format and weight) for competitors whose posting profile is both nationwide and consistent with the average Royal Mail geographical mix of mail for delivery throughout the U.K. Zonal Access pricing provides access prices that are differentiated across four zones (Urban, Suburban, Rural/Deep Rural, and London). Such a price schedule is very useful to prevent cream-skimming from occurring. Indeed, observe that the majority of access mail in the U.K. is carried by Royal Mail under National pricing plans and only a small minority under Zonal pricing plans.

We also observe from the European experience that competitors mostly offer lower-quality services compared to the incumbent, at a lower price. These offerings may of course increase social welfare, since they enlarge the range of services on offer to consumers. Also, this observation is in line with the “ladder of investment” theory, with competitors ramping up the quality of their offer as they start to improve their operations. At the same time, this type of entry may occur because the incumbent is prevented from offering these products due to the minimum quality requirements embedded in USO. If this is the case, then entry may not be socially optimal, since entrants are indeed protected from the competition of the USP by the imposition of USO on the latter! We have seen in section 4.2 that many Canadians would welcome lower quality standards if that could decrease postal prices.

Taking a broader perspective, postal operators are already in competition with firms from the media and telecommunication industries. This competitive pressure, which results in lower letter volumes delivered, is used as an argument by postal operators to relax the USO imposed on them. For instance, there is currently an academic debate as to whether price caps remain the best instruments to regulate the USP’s prices in that context.⁵⁴ This competitive pressure from outside the industry also induces USPs to reduce their cost.⁵⁵

⁵⁴ See C. Borsenberger, S. Bréville, H. Cremer, P. De Donder and D. Joram, “Price Cap”; and T. Brennan and M. Crew, “Price cap regulation and declining demand” (paper presented at the 23rd Conference on Postal and Delivery Economics, Vouliagmeni, Greece, June 3–6, 2015).

⁵⁵ For state-of-the-art studies on the efficiency of postal networks, using non-parametric methods, see C. Cazals, P. Dudley, J.-P. Florens, S. Patel and F. Rodriguez, “Delivery offices cost frontier: a robust non parametric approach with exogenous variables,” *Review of Network Economics* 7, 2 (2008).

The main message of this section, then, is that competition should be welcomed, provided that the USO are devised to allow the incumbent to compete on a “level playing field” with its competitors. This requires first that USO not be overly restrictive. Uniform-pricing requirements (for final prices as well as access charges) are especially detrimental to competition, potentially leading to cherry-picking. Minimal quality requirements can also open the door to inefficient entry, when USO restrict the type of mail that the USP can offer.

Opening the market to competition must be accompanied by measures to ensure the financial viability of the USO. Various measures have been introduced in different countries. Following the example of the telecommunication industry, one can impose “pay-or-play” regulations: either competitors assume their share of the USO, or they contribute to a fund whose objective is to compensate the USP for the USO costs. The taxation of competitors to fund the financial cost of the USO has been studied by De Donder, Cremer and Rodriguez.⁵⁶ One could imagine auctioning off the right to deliver in certain areas, trading-off competition *in* the market for competition *for* the market.

4.5 Privatization

The privatization of the incumbent postal operator is sometimes considered as part of the rethinking of the postal sector. It is important to stress from the outset that privatization is not a substitute to the opening of the postal market to competition, but may rather be considered as a complement, since a private monopoly need not be more friendly to social welfare than a public one.

The international experience varies a lot in that regard. The public ownership of the USPS is rarely questioned in the U.S. The various European directives are silent about the ownership of postal incumbents, and European countries have followed different paths, the majority having kept (at least partial) public ownership of the incumbent, while others (such as Germany, the Netherlands, and more recently, the U.K.) have privatized the postal incumbent.

The main economic rationale for privatization of an incumbent postal operator (as well as in other industries) is the difficulty of a government to efficiently run a firm, for several reasons. Firms are run by professional managers, who have more information regarding the costs and demand characteristics of the firm they run than its owners do. The modern economic literature has thus studied the interplay between managers and owners as a “principal-agent” problem, where the principal (the owners) tries to induce its agent (the managers) to behave in a way which benefits the principal, in a context where the agent benefits from asymmetric information compared to that of the principal. Such a problem is present also for private firms, but is made more complex by several characteristics of public ownership. First, the owners of a private firm usually have a single and clear objective (maximizing profit, or the value of the firm) while governments usually have multiple, and potentially conflicting (political and social) objectives, such as encouraging

⁵⁶ P. De Donder, H. Cremer and F. Rodriguez, “Funding the Universal Service Obligation under Liberalisation,” in *Postal and Delivery Services: Pricing, Productivity, Regulation and Strategy*, ed. M. Crew and P. Kleindorfer (Boston: Kluwer Academic Publishers, 2002), 31-53.

economic growth, employment, regional development, macroeconomic stability, etc. The simultaneous presence of multiple objectives and of asymmetric information opens up many possibilities for the firm's stakeholders (management, but also employees and their unions, etc.) to capture rents while claiming to follow one of the multiple objectives assigned to their firm. Second, even in the case of a single objective (such as maximizing social welfare, subject to the firm breaking even), it is more complex to measure the performance of the firm with respect to this objective than it is to measure profits or the value of a private firm. Here also, the difficulty in measuring performance (how does one evaluate the amount of social welfare attained, and whether this amount is close enough to the maximum attainable?) opens up possibilities to capture rents. Third, in democracies, representatives of the citizens are elected for limited terms, so that we have another principal-agent relationship, between citizens and their elected representatives. The time horizon of the latter is often limited to their elected term, which in turn means that they may give shortsighted instructions to the public firms' managers. Fourth, and in part because managers and stakeholders understand well the elected representatives' objectives and constraints, the credibility of the instructions given by these representatives is not always well established. The best example of this problem is the "soft budget constraint" faced by many firms; while stakeholders in privately run firms know that their firm will disappear if it does not break even on a regular basis, such a threat is much less credible for public firms, where a variety of reasons (related to the unwillingness of elected representatives to let a firm disappear under their watch) may explain why a public firm in dire straits would be bailed out by the authorities. The perception of a soft budget constraint may then induce the unions, for instance, to take a harder stance in negotiations, and may result in multiple strikes, and/or overly generous labour contracts. Finally, even if all those problems are solved, and if the public firm is run to maximize social welfare, this firm will interact with private competitors. The study of the interactions between a small number of firms with different objectives (such as profit maximization for private firms and welfare maximization for public firms) is undertaken in the "mixed oligopoly" literature. This literature is rife with paradoxes, where aggregate social welfare would be higher if all firms maximized profits, rather than if one firm maximized welfare and all others profits.⁵⁷

Note that the long list of problems associated with public ownership does not mean that the only way to solve them is to privatize the incumbent. There exist ways to tackle these problems without resorting to privatization. Take the example of the soft budget constraint. This problem has mostly been solved in Europe by the prohibition of public transfers to public firms, except in very specific circumstances. The European Commission and European courts pay a great deal of attention to this provision of European treaties. Also, private ownership does not always solve all problems, and may create others. For instance, the privatization of postal incumbents in Europe has created some desire to build "national champions," namely firms that benefit from lenient regulatory oversight at home, in order to build a strong national base and to compete aggressively abroad.

⁵⁷ See P. De Donder, "L'entreprise publique en concurrence: les oligopoles mixtes," *Revue Française d'Économie* XX (2005): 11-50, for a survey of this literature; and P. De Donder and J. Roemer, "Mixed oligopoly equilibria with endogenous firms' objectives," *International Journal of Industrial Organization* 27, 3 (2009): 414-423, for a study of a mixed oligopoly situation when all firms have multiple objectives.

An argument often given in favour of privatization is that it brings much-needed money to the public coffers. Recall that the value of a firm is the discounted sum of its future (expected) profits. There are, then, two reasons why the amount offered by private investors may be large enough to convince authorities to sell: first, if future profits are higher under private than under public ownership and, second, if public and private discount rates differ. One has to be cautious in both cases. Starting with the latter, elected representatives may be more impatient than private investors are because of a much-reduced time horizon, limited to the next election. In that case, selling the public firm may not be in the best interests of citizens. As for the former case, one must look at the source of the higher private profits. If they come from, for instance, increased efficiency, then privatization represents a sort of “double dividend” (inflow of money for the authorities, and higher efficiency in the postal sector). If, however, higher profits come from the ability to escape regulations (because of the lack of an independent regulator, or because it is not sufficiently funded, or is staffed with insufficiently knowledgeable agents, for instance), then privatization looks much less promising. Finally, observe that all postal operators are operating in a context of decreasing letter volumes. It is still unclear at this point whether this trend will continue unabated, and at what level letter volumes may stabilize (if they do stabilize at all). At the same time, parcel volumes are increasing, but they usually bring less profit to the postal operator both because they still represent lower volumes than letters do, and because the parcel industry has traditionally been more competitive than letters in most developed countries, so that the profit per parcel is usually quite low. Given this uncertainty about the evolution of the profitability of the postal sector, it is far from certain that governments would be able to obtain a sizable amount for a postal incumbent.

European directives take no stand on the ownership status of the incumbent postal operator because different countries may prefer different options, according to their own sensitivities. The privatization of a postal operator is no panacea. More precisely, the case for keeping (at least partial) public ownership is stronger in countries where the quality of public institutions is high enough that the various agency problems mentioned above can be solved with public regulatory oversight. A successful public firm must then be given clear objectives and must be allowed to have an arm’s-length relationship with its public owner. Managers of public firms should be given freedom to run the business efficiently. At the same time, for the reasons explained in section 4.3, the incumbent (public or private) postal operator should be scrutinized by an independent regulator.

Privatization may be considered at the same time as the market is opened to competition, but a case can be made to proceed sequentially, opening to competition first, reorganizing the public firm, and then privatizing it later. This is the route followed by the U.K., where the postal market has been fully open to competition since 2006, but where Royal Mail was only privatized in October 2013. Observe that 10 per cent of the shares have been kept aside (for free) for Royal Mail’s more than 150,000 employees, which has facilitated the transition from public to private ownership.⁵⁸

⁵⁸ The privatization has not affected the Post Office, which is now a separate company from Royal Mail. The government says it wants to invest more money in the Post Office network to prevent branch closures and eventually set it up as a mutual business.

5. CONCLUSION

The postal sector is in evolution in many parts of the world. The European Union has been reorganizing its postal sector for close to two decades, and has opened it fully to competition since the end of 2012. This move has been accompanied by setting up independent regulators and, in some countries, by the privatization of the postal incumbent. The evolution in the U.S. has been less visible, with the transformation of the Postal Rate Commission into the Postal Regulatory Commission, with enlarged duties to regulate the USPS, which has been granted additional freedom of decision.

Until the mid-2000s, letter volumes in most developed countries evolved in line with economic activity. With the advent of electronic substitutes to mail, letter volumes have been decreasing in most countries ever since. This structural decline is pronounced, continuing, and may even be accelerating, so that it is difficult to tell at what level letter volumes will stabilize. At the same time, the growth in transactions over the Internet (e-commerce) has translated into large increases in parcel volumes, but this market is not yet large enough to compensate for the loss of letter volumes. These evolutions raise profound questions for the future of the postal sector. They also make the problem of reforming the sector more urgent, as delaying will only increase the problems being faced, including the financial viability of the USO and of CPC.

Canada Post also faces these trends, and has problems of its own. For instance, CPC is faced with an increase in the number of addressees while the letter volumes it delivers decrease. Also, the funding of the pensions of a large workforce will become increasingly difficult as letter volumes continue to plummet. The problem of pension funding is beyond the scope of this paper, but should be kept in mind when discussing the future of Canada Post.

The recent experience in Europe, and to a lesser extent the U.S., allows us to make recommendations for the Canadian postal sector. The European postal sector (and its customers) have benefited from the introduction of competition. This competition has mostly taken the form of upstream competition, where competitors perform the collection, sorting and transportation of mail, which is then brought for delivery to the incumbent. Such a form of competition has a very long history in the postal sector, especially in the U.S. End-to-end competition, where the competitor also does its own delivery, is rarer and often confined to specific urban areas. The “ladder of investment” theory, which predicts that competitors will move from access to bypass (i.e., building their own delivery network) as time passes has not received much empirical confirmation as yet.

This competition has proved compatible with the financial viability of USO. Different countries have experienced with various ways to fund these obligations. At the same time, the need to finance these obligations explicitly (rather than through hidden cross-subsidies between activities performed by the USP) has added pressure to re-evaluate the costs and benefits of the USO, which is an excellent development.

These evolutions have been made possible by the setting-up (or the reinforcement) of independent regulators. These regulators form the cornerstone of the postal sectors in Europe and in the U.S. They are increasingly building their interventions on recent, sound economic research, using for instance price caps to regulate the pricing practices of the postal incumbents. This approach also allows giving the postal operator as much flexibility as possible to ensure the financial viability of the USO in a context of decreasing demand. In the case of CPC, this flexibility should definitely include the ability to choose its prices (subject to a price-cap formula set by the regulator), to franchise its postal outlets, and to adapt its labour force (including by attrition) to its activity level.

These movements have been accompanied in a minority of European countries by the privatization of the postal incumbents. This movement is still ongoing, with the recent privatization of Royal Mail in the U.K. It is difficult to draw conclusions from these changes, both because they are recent and because they have taken place at a moment where the postal sector has been in flux. This drives us to recommend a “wait and see” approach on privatization.

About the Author

Philippe De Donder obtained his PhD in economics in 1998 from the University of Namur in Belgium, and has been working at the University of Toulouse (Toulouse School of Economics) ever since, first as Assistant Professor and then as Research Professor affiliated with the French National Center for Scientific Research (CNRS). He has been a visiting professor at the University of Rochester (NY, 2000-1), Yale University (2007-8) and Université du Québec à Montréal (2014-15).

His main research fields are public economics, political economy and industrial organization. He has published around 50 articles in international peer reviewed journals such as *Journal of Public Economics*, *The Economic Journal*, *Journal of Health Economics*, *Social Choice and Welfare*, *Economic Theory* and *International Journal of Industrial Organization*. He is an associate editor/editorial board member of the *Journal of Public Economic Theory*, *Social Choice and Welfare* and the *Journal of Regulatory Economics*. He has been working and publishing on postal economics since 1999.

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University of Calgary, Downtown Campus
906 8th Avenue S.W., 5th Floor
Calgary, Alberta T2P 1H9
Phone: 403 210 3802

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