Regulation and Competition in the Postal and Delivery Sector

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Introduction

Change is highly visible in the postal sector these days. The adoption in 2008 of the Third Postal Directive in the European Union has set 2011 for the major national postal markets in the EU to eliminate reserved areas completely, thereby completing the first full step toward Full Market Opening (FMO) in the EU postal sector. In other parts of the world, while FMO is not envisaged, similar trends toward commercialization of the Postal Operators (POs) and competition are evident as intermodal competition from electronic substitutes for traditional mail products has made business as usual in the postal and delivery sector untenable (Crew et al. 2008).

This introduction of direct competition occurs at a time when intermodal competition is causing large declines in mail volumes. For example, USPS, while retaining a solid reserved area protected by law, has seen its volume decline dramatically from its peak of 213 billion pieces in 2006 to 177 billion in 2009. Moreover, the decline was precipitous in the last two years as its volume was 212 billion pieces in 2007, only a very slight decline relative to 2006. The pie is now shrinking fast and the monopoly is offering USPS and other POs little protection against the cold winds of recession and electronic competition.[1] POs continue to act as Universal Service Providers (USPs), as the public and their legislative representatives have continued to demand the retention of the Universal Service Obligation (USO).

Notwithstanding increasing competition, both direct and indirect, there is no sign of reduced regulation in the postal sector. Regulation is not on the wane but continues to thrive, which is more than can be said for the postal sector. Paradoxically, while telecommunications regulation normally provides few insights into postal regulation because of fundamental differences in technology and cost structure, in this case the mistakes made in telecommunications may yield some lessons. A case in point is the misguided attempt to introduce competition into traditional wireline telephony, especially as embodied in the Telecommunications Act of 1996 in the United States. What is now apparent is that technology was changing very rapidly. Intermodal competition from wireless and broadband was making irrelevant attempts to create competition by regulation of the natural monopoly in traditional wireline (the local loop). In telecommunications, intermodal competition meant that while traditional telephony was a natural monopoly, the monopoly was worth less and less over time and became hardly worth fighting over. The situation in the postal sector is different in that its cost structure does not exhibit significant transactions specific investments and large sunk costs. So, unlike traditional telephony, competition has long been feasible except for one major problem – the USO. This has been a problem from the very beginning of the policy debate on FMO.

If POs are to continue to support their USO, which entails daily deliveries to every address in the country, then they must find new ways to respond to the problems of declining demand for their traditional letter products as a result of electronic competition and also the opening up of their markets to competition. The problem cannot be solved as the telephone companies did, by entering the new, fast-growing businesses of wireless and broadband which could more than replace the revenue loss in traditional telephony. For POs the way ahead looks unambigu-

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[1] The current "great recession" has certainly taken a major toll on mail volume. The impact of electronic competition has also been significant. The magnitude of the decline also varies depending on mail products, content and customer segment. Our focus in this paper will not directly address the source of falling mail volumes, but rather the consequences for a PO's business model and the nature of regulation appropriate in the face of volume drops. For other perspectives on these challenges, see Crew and Kleindorfer (2011a).

ously gloomy. POs' options are limited. They include: stemming the decline in mail volumes, internal business transformation, more effective responses with End-to-End (E2E) service and other retail products to the entry of electronic substitutes, restructuring the USO and entry into businesses other than mail. Regulation can play a role in this, but POs themselves have the major role to play in reshaping their business strategies to focus on their wholesale business. This is the first step that POs should take as they address the most important issue facing them, namely, the retention of the benefits of scale economies. Volume declines for POs are serious because, as a network with resultant scale economies, the very benefits that worked in their favor as volumes were expanding work against them now. The principal area where volume declines can be reduced is developing the use of access products by entrants. These access products include both upstream mail processing and downstream delivery. Increasing the use of such access products has implications for changes in the business model of POs to emphasize the wholesale side of the business and also for regulatory policies to allow and encourage such a shift.

Against this background, we now describe a few of the major issues facing the postal sector. In particular, the next section examines the role of regulation consistent with funding the USO, focusing on Price Cap Regulation (PCR), which is essentially ubiquitous in the postal sector. We then discuss the role of regulation and changing business models to retain delivery economies of scale under competition, followed by some conclusions.

The role of regulation under FMO

The role of regulation is going to be a critical element in the mix of instruments that determine whether FMO will improve the efficiency of the postal sector or have seriously negative consequences. European postal regulation has a significant reach, with primary areas including: the scope of the USO, accessibility conditions and quality standards, competitive and level playing field issues (such as customs clearance and value-added tax uniformity), accounting separation and structure, and authorization/licensing of operators (WIK 2006). Our focus here will be on two interrelated issues at the center of postal regulation, namely a) funding of the USO and b) tariff/price regulation. For purposes of clarity of discussion of these issues, we take the scope and conditions associated with the USO as given.[2]

Mistaken regulatory decisions can result in serious problems. One regulatory decision that has been made concerns the form of regulation. PCR has been widely adopted. Prima facie this is a positive sign. In his report to the Department of Trade and Industry proposing the system of regulation for British Telecom, Littlechild (1983) argued that PCR has a number of beneficial efficiency properties relative to other forms of existing regulation, including cost-of-service regulation, also known as rate-of-return regulation (ROR), which was prevalent in the US at the time. His arguments have been explored more formally in many subsequent papers (e.g., Braeutigam and Panzar 1993; Crew and Kleindorfer 2009). These efficiency arguments for PCR were driven by a presumption that profit-oriented residual claimants would attempt to reap the benefits of PCR through the additional flexibility in pricing and in the ability to appropriate the benefits of increased cost efficiency in the short run. These arguments considered, often only implicitly, that owners of a privately owned firm would act as residual claimants, and profit maximization and therefore cost minimization are natural corollaries of the efficiency claims of PCR. However, in the postal sector, most POs are public enterprises. Public enterprises do not have residual claimants and do not face the discipline of bankruptcy. This issue is examined in detail in Crew and Kleindorfer (2008) for the postal sector. Notwithstanding the absence of residual claimants in the postal sector, we have argued that PCR remains the best current alternative for price regulation. Indeed, the lack of residual claimants itself may be less of an issue under FMO. To the extent that FMO puts POs under greater pressure from competition in the product market, they may feel less free to pursue objectives other than profitability. Objectives other than profit maximization are feasible only under conditions of market power. In the limiting case of perfect competition, profit maximization is the only feasible objective for firm survival. However, under FMO POs will still retain residual market power. So the discipline of the product market will be in the right direction but would not be complete.

More generally, efficiency gains from PCR are likely only to be achieved to the extent the PO is driven

[2] See Crew and Kleindorfer (2007) for a discussion of issues related to defining the scope of the USO.

toward profit-maximizing behavior. Thus, in the absence of privatization, promoting commercialization of the PO itself should be the primary objective of regulation under FMO. Commercialization would then drive a better alignment of the PO's profits with the incentives faced by various stakeholders, and with an improved market and customer orientation that accompanies commercial operations. This approach may be thought of as attempting to make stakeholders in the PO into "pseudo residual claimants". For management, this means greater reliance on the profit alignment of executive compensation. For labor, this means profit sharing, and employment contracts and work rules that are more in tune with market realities and the profitability of the enterprise. For regulators, this means providing the flexibility to the enterprise to behave like a commercial enterprise, and not just a regulated entity saddled with many public missions and no commercial mission.

Commercialization implies a fundamental cultural shift for most POs and this is not easy to achieve. It is not a matter of the government just requiring that the PO be profitable and imposing a simple profit target. For example, in the case of the United States Postal Service, the law required it to earn sufficient surplus to prepay its retiree healthcare benefits. This did not happen and dismal losses resulted followed by pleas to be relieved of the obligation. The problem is that few of the other prerequisites of a commercial organization had been put in place, thus giving the pleas some validity. In the case of USPS, PCR was put in place in the 2006 postal reform bill, but commercialization of the enterprise has not yet followed, nor have the anticipated gains from PCR.

Notwithstanding the qualifications noted above, PCR still appears appropriate for those parts of the postal business that are not yet workably competitive. However, the efficiency gains from PCR can only be achieved if it is accompanied by commercialization of the PO. PCR is superior to the alternatives and has the benefit of flexibility, low transactions costs and the ability to accommodate competition. It has also been widely adopted in the postal sector. In terms of commercialization, some POs (the Netherlands, Germany and Austria) have adopted varying degrees of private ownership and others (e.g., La Poste in France) have been corporatized to emphasize and enhance their commercial character. FMO can be expected to promote further moves in this direction.

Implications of intermodal competition for POs and for regulation

Intermodal competition from electronic media presents a serious threat to the viability of POs as mail volumes decline. It really is the elephant in the room when it comes to threats to the traditional postal business. It is the elephant in that it has the potential to trample down the postal business, if not to death, in a manner that nonetheless will inflict severe damage. By contrast, the threat from head-on competitors is likely to be much less severe. The shrinking pie from declining volumes means that scale economies in delivery are under pressure. This works against both incumbents and entrants, as there are likely to be fewer routes that have sufficient volume to be of interest to entrants. However, entrants still want to retain their customers and grow their business. Under falling volumes, entrants can help stem the decline in mail volumes, which enables POs to retain volume in the form of access that would otherwise be lost. This, in turn, reduces the (average) cost increases that occur as a result of lost volume with scale economies. Thus, preserving final delivery volumes, through innovations in both E2E and access products, plays a critical role in times of volume decline arising from intermodal competition.

There are a number of reasons for believing that a greater emphasis on the strategic importance of the PO's wholesale business may be beneficial. Access customers are likely to have lower costs and therefore lower prices than POs for the part of the value chain they provide.[3] In addition, they are likely to be more innovative in designing products that compete more effectively with electronic substitutes. They will be in competition with other entrants and electronic products. Many of them will be small companies, which will have a much greater incentive to innovate than traditional POs, largely because they will retain a greater share of the benefits that arise.

This logic argues that PO survival is closely tied to a greater emphasis on its wholesale business in providing delivery services rather than E2E services. It is an application of the basic notion of comparative advantage. Delivery is where POs have a comparative advantage. POs' ubiquity of delivery also means that POs and delivery companies can work together, with POs selling delivery to delivery companies and

[3] There are a number of reasons why this is likely to be the case. These include access to lower priced labor, less restrictive work rules and the absence of powerful scale economies upstream.

buying transportation and logistics. Examples of this kind have been examined by Smith and Vogel (2010) in their discussion of the kind of cooperative and competitive relationships that exist between UPS and USPS.

The notion of PO survival being tied to becoming superior wholesale operations might be extended beyond the provision of access to include retail outlets. Just as POs would make money by delivering access customers' mail they could also make money in their postal outlets by selling competitors' products. Indeed, the products sold might involve inputs from more than one input. The retail outlet might sell a UPS product which the PO delivers to a UPS depot, which then passes it on in the UPS chain with ultimate delivery provided by the PO. Alternatively, the PO might sell a FedEx product that FedEx picks up from the PO, transports and delivers to the final destination. Numerous combinations are possible and once POs see their primary business model as wholesale and access, business innovations in hybrid mail, in differentiated delivery quality, and in many other areas, are likely to be triggered and supported by the PO.

A major question raised by greater emphasis on wholesale operations by POs is the role of regulation and the place of FMO. FMO in Europe can be likened to a train that has left the station. However, E2E competition is unlikely to be widespread as a result of FMO for a number of reasons. Scale economies are such powerful drivers of the process that POs will have strong incentives to provide access services at prices that entrants cannot beat. Regulator pro-activity in regulating access should depend on the extent to which POs employ an open access policy. The more open the access policy and the more competitive the access prices, the less the regulator should get involved. Regulators should not become involved in a detailed manner in access pricing, especially when it comes to fixing minimum prices. Generally, as long as the PO sets access prices above marginal costs, and does so in a transparent and non-discriminatory manner, the notion of "the lower the better" applies.[4]

Interestingly, POs may not necessarily see the importance of encouraging access by a pricing strategy and the technical conditions offered to access seekers. POs may still have a monopoly mindset and attempt to use their residual market power to keep competitors out by restricting access. For example, a PO under FMO might choose to exploit residual market power by discriminatory access policies directed against access customers who were also in the E2E business. The impact of this in the face of volume declines brought about by intermodal competition would be to lose further volume. The PO, by discouraging access, would be further reducing its own scale economies, resulting in higher E2E prices and further volume declines as intermodal competition looks more attractive. Thus, paradoxically, even though profit considerations should drive a PO to encourage access, regulators may need to stimulate demand-enhancing access policies to the extent that the PO retains a monopoly mindset. However, the regulator should keep in mind the threat of the elephant in regulating access. A PO's policy of restricting the development of access might be successful short-term in curbing entry, but at the price of being overwhelmed by the elephant of electronic competition in the long run.

Summary and concluding comments

Volume decline from intermodal (electronic) competition is much more serious than anything faced by POs in their history. Unlike previous kinds of competition, very little complementarity between mail and electronic substitutes has been observed. The telephone did not mean that people dramatically cut back on sending letters. Electronic competition hits letters head on. The only apparent relief it provides is in increased parcel traffic through e-retailing. Even here, competitors are likely to compete effectively with POs. However, for e-retailing deliveries to households, competitors may see the advantages of offering a lower priced service using the PO delivery network.

Delivery excellence is the quintessential core competence of USPs. In an era of increasing intermodal competition, this means that maintaining delivery volumes, from both E2E and access customers, will be a central strategic priority of POs in their traditional mail business. While the retail business will continue to be important for reasons of the USO and single-piece mailers, given the nature of growing intermodal competition, the focus is likely to be on wholesale access customers as the key strategic pri-

[4] For an analysis of the deeper logic behind this claim, see Crew and Kleindorfer (2011b). In contrast to previous contributions to the access literature which assumed constant returns in the delivery function, this paper shows the fundamental importance of economies of scale in delivery and the efficiency of allowing significant pricing flexibility to the PO to promote their retention of these scale economies.

ority. One implication of this is that regulation of access should be minimal and regulators should intervene if PO access policies fall short of encouraging access. Current research is centered on developing principles underlying efficient zonal access pricing and on the role of quantity discounts, product innovation and other means of encouraging larger customers to continue to use PO delivery services.

POs that focus on serving their access customers effectively are going to need to consider carefully the attributes of their access products. If access is the future for POs, they and their regulators need to understand the importance of promoting it. Cost cutting by itself does not address the fundamental issue of volume. Moreover, it may adversely affect volume to the extent that it lowers quality or other demand drivers. On the other hand encouraging the growth of access directly addresses the problem of volume on delivery economies of scale. The effective demise of the postal service does not have to occur soon if POs are proactive in developing access. In addition to developing access, POs need to improve the interfaces of mail and parcel networks with the Internet and the new communications products arising from the Internet.

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