

BEFORE THE POSTAL REGULATORY COMMISSION
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In several recent price adjustments, the Postal Service has deviated from Efficient Component Pricing (ECP), the principle equating worksharing discounts to the avoided costs of the Postal Service. This shift in pricing policy signals an important departure from the Commission's long-standing policy toward worksharing and raises serious competition policy concerns.

The cause of this concern is quite simple. Worksharing discounts below avoided costs exclude efficient competitors in the upstream mail processing market from access to the monopoly delivery network of the Postal Service. In the vast majority of liberalized network industries, the regulatory regime has in place safeguards to prevent this type of exclusionary price squeeze. That is, regulators use ECP to establish a *ceiling* on access prices. The price cap regime currently in place to regulate the market dominant products of the Postal Service does not contain such safeguards. Ironically, the Postal Accountability and Enhancement Act of 2006

¹ My autobiographical sketch is attached as an appendix to these comments.

(PAEA)² prevents the Postal Service from offering worksharing discounts in excess of its avoided costs. That is, ECP is used to establish a *floor* on access prices. Therefore, the only way to prevent exclusion *and* satisfy the PAEA mandate is for worksharing discounts to be set *equal* to avoided costs.

The remainder of these Comments is organized as follows. Section 1 presents a brief review of the economic efficiency argument in favor of ECP. While the analysis is standard, the presentation here makes clear the exclusionary consequences of setting worksharing discounts below avoided cost. As background, Section 2 provides a brief history that contrasts the development of upstream competition resulting from access pricing policies in the US postal and telecommunications sectors. Section 3 discusses incentives of the Postal Service when subject to Global Price Cap regulation. The analysis shows that it is hardly surprising that the Postal Service would seek to reduce worksharing discounts in an attempt to capture workload from the private sector during a period of declining volume and possibly increase profits. Section 4 explains why, in my view, the current Global Price Cap regime does not qualify as a “modern system for regulating rates” as mandated by the PAEA. Any such system would include an ECP based floor on worksharing discounts. Section 5 briefly restates my findings that (1) worksharing discounts less than 100 percent of avoided costs are *exclusionary* and should be prohibited by the Commission; and (2) the Commission should use its authority under section 3662(a) to add this constraint to the price cap regime applied to the Postal Service.

² See Pub. L. 109-435, 120 Stat. 3198 (Dec. 20, 2006). The PAEA amends various sections of title 39 of the United States Code. Unless otherwise noted, section references in these comments are to sections of title 39.

I. The Simple Economics of Worksharing based on Efficient Component Pricing (ECP) Principles

Worksharing was the crowning achievement of postal policy under the Postal Reorganization Act of 1970 (PRA). Its use succeeded in “liberalizing” a large share of postal sector value added and created a highly innovative competitive industry. The result was enhanced efficiency for both the postal sector and the Postal Service.³ The guiding policy principle of the Postal Rate Commission (PRC) toward worksharing was the Efficient Component Pricing (ECP) rule.⁴ Worksharing discounts were set equal to the (unit) avoided costs of the Postal Service. ECP decentralizes the minimization of postal sector end-to-end costs between Postal Service and upstream competitive providers.

A simple model suffices to illustrate the efficiency properties of an ECP policy for worksharing. Consider an incumbent that provides two market dominant services: an end-to-end service and a workshared (or “access”) service. In the case of the workshared service, competitive consolidators provide upstream, sorting functions and the incumbent provides only delivery. More formally, let $D(p)$ denote the total demand for the end-to-end service as a function of the stamp price p and let $S(\delta)$ denote the competitive supply of upstream services as a function of the worksharing discount δ . Thus, end-to-end and workshared volumes carried by the incumbent are given by $D(p) - S(\delta)$ and $S(\delta)$, respectively. Let t denote the incumbent’s unit costs of upstream sorting.

³ See, e.g., Cohen et. al. (2002; 2006): Cohen, R. H., W. W. Ferguson, J. D. Waller and S. S. Xenakis, “Impacts of Using Worksharing to Liberalise a Postal Market.” In *Liberalisation of Postal Markets*, edited by Gabrielle Kulenkampff and Hilke Smit. Bad Honnef: WIK (2002); Cohen, Robert H., Matthew H. Robinson, John D. Waller, and Spyros S. Xenakis, “Worksharing: How Much Productive Efficiency, at What Cost and at What Price?” In *Progress toward Liberalization of the Postal and Delivery Sector*, edited by Michael A. Crew and Paul R. Kleindorfer. New York: Springer, (2006).

⁴ See PRC Dkt. No. R2006-1 Op, para. 4004-05

In competitive equilibrium in the upstream market, the marginal cost of all active fringe providers is equated to the market price they face: i.e., the worksharing discount δ . Thus, when this discount is set equal to t , the upstream unit costs of the Postal Service *avoided* by worksharing, all upstream marginal costs for the postal sector are equated and upstream sector costs are minimized. The efficiency follows from the well known principle of optimality for a “multi-plant” industry: the marginal costs of all active producers must be equated in order for industry costs to be minimized. Figure 1 illustrates this situation.

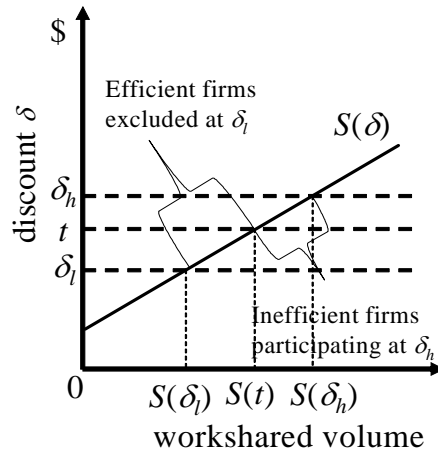


Figure 1

The diagram also makes clear the inefficiencies that result when the worksharing discount is *not* set equal to the avoided upstream unit cost of the Postal Service. When the discount is set equal to $\delta_l < t$, the fringe provides too little worksharing: i.e., only $S(\delta_l)$ units. Firms whose unit costs of providing the upstream service component are less than that of the Postal Service do not fully participate in the market. Similarly, if the discount is set equal to $\delta_h > t$, the fringe provides too much worksharing: i.e., units of upstream service that are more costly than those of the Postal Service are drawn into the market.

Deviating from ECP reduces productive efficiency and raises serious competition policy concerns. Reducing discounts below Postal Service avoided costs for any reason is a form of exclusionary pricing. This vertical price squeeze would exclude more efficient competitors from performing upstream services. This would have a short-term negative effect on the productive efficiency of the postal sector and a longer-term negative effect of slowing or reversing the shift in value added from the Postal Service to the private sector.

II. The Evolution of Access Pricing Policy and Competition in the Postal and Telecommunications Industries

This section presents a brief discussion contrasting the evolution of downstream access policy in the postal and telecommunications industries. It is perhaps presumptuous to purport to explain the nature and significance of access pricing to the (lineal descendent) of the regulatory body that “invented” it.⁵ However, in the postal context, worksharing has always been seen as a form of product differentiation rather than a tool for market liberalization. Some large mailers produced mail that was partially sorted and submitted in trays. Clearly, such mail was cheaper for the Postal Service to process. Therefore, basic price theory would suggest that it might make sense for the Postal Service to charge lower rates for mail that was cheaper for it to process.⁶

Early on it was recognized that *incentives* must play a key role in setting any discounts for presenting workshared mail. The extent to which a firm’s mail volumes exhibited desirable, cost-reducing characteristics was not an immutable characteristic of the firm’s business, but rather an important operational decision of the firm. The larger the size of the discount, the more mail participating firms were willing to “work” for the Postal Service and the greater the number

⁵ See Coleman W. Hoyt and Robert H. Cohen, *Postal Worksharing: An Irreverent History*, privately published, (2011) for an entertaining history of the origins of postal worksharing.

⁶ However, this is not a foregone conclusion. If the demand of such large mailers were sufficiently inelastic, it might be desirable to charge them a higher rather than a lower price. As we shall see, it is the fact that the cost saving characteristics are *endogenous* (chosen by the mailer), that necessitates the connection between lower costs and lower prices.

of firms that were willing to participate in the worksharing process. The obvious policy question in this context is how should the size of the discount be determined. Almost as soon as this question arose, a compelling and intuitive “solution” emerged: discounts should be approximately equal to the per unit costs avoided by the Postal Service.

It should be noted that this is an obvious, intuitive solution *from the regulator’s point of view*, in the context of cost-based, breakeven regulation as practiced under the PRA. It would never appeal to an unregulated monopolist (or monopsonist) or to a regulated firm trying to maximize output, revenue or the size of its labor force.⁷ This policy emerged many years before the issue of access pricing even arose in other network industries such as telecommunications. The avoided cost discount approach was put into practice by the PRC before it had even been given a name by regulatory economists!⁸

However, the introduction of worksharing discounts did more than incentivize large mailers to submit “cleaner mail.” It created an industry. Consolidators arose to aggregate the volumes of smaller mailers and perform the worksharing services required to obtain discounts. Even more so than large mailers engaged in “in house” preprocessing, such consolidators were both partners with and competitors of the Postal Service. Yet, despite initial resistance from the Postal Service and, especially, postal unions, the PRC fostered the development of this “worksharing market.” Over the years, it did so through a clear statement of its objective – minimizing total *postal sector* mail processing costs and consistent advocacy of the policy required to achieve it — avoided cost worksharing discounts. As I will explain below, this

⁷ For a discussion of the incentives of *non profit-maximizing* state owned enterprises to exclude competitors, see Sappington and Sidak, (2003a,b): Sappington, D., and Sidak, J. “Incentives for Anticompetitive Behavior by Public Enterprises,” *Review of Industrial Organization* 22: 183–206, (2003a) and Sappington, D., and Sidak, J. “Competition Law for State-Owned Enterprises,” *71 Antitrust Law Journal* No. 2 (2003b).

⁸ Hoyt and Cohen (2011), p. 24: “Many years later we learned about the economic theory called ‘Efficient Component Pricing’ (ECP). ECP meant that worksharing discounts should be set at cost avoided. We were very glad to learn that there was an actual economic theory that described what we had done based upon intuition.”

partnership relationship between a network monopolist and an emerging competitive sector is a very unusual aspect of liberalization; it is an almost unique characteristic of the US postal sector.

In contrast, consider the development of competition in the post World War II US telecommunications industry.⁹ The industry consisted of hundreds of local monopolies¹⁰ interconnected by AT&T's Long Lines Division for the provision of end-to-end long distance service. AT&T's monopoly of long distance service was enforced by the Federal Communications Commission (FCC). The Federal Communications Act of 1934 gave the FCC the responsibility to authorize the use of the electromagnetic spectrum by private companies. The postwar development of microwave technology resulted in dramatic cost reductions for the provision of long distance service *and*, more importantly for this discussion, made it technologically feasible for private companies to construct and operate dedicated facilities to provide long distance connections between their corporate locations *without* the need to use long distance facilities of AT&T. During the 1950s, many corporations and government entities petitioned the FCC to allow such "self provision" of long distance. After substantial resistance on the part of the Bell System and various state regulators, in its landmark *Above 890 Decision* (1959), the FCC finally agreed to permit such entry on a limited basis. Note that this decision did *not* authorize entry into the market for provision of common carrier telecommunications service. Private operators were allowed to use spectrum (above 890 megacycles) for the provision of point-to-point *strictly for their own use*. They could not resell any available capacity on a common carrier basis to other users: i.e., act as consolidators.

⁹ I focus on telecommunications because of the general familiarity of its history and its ubiquitous role in everyday life. The adversarial nature of access relationships that I describe applies to most liberalized network industries. See W. Kip Viscusi, Joseph Harrington and John Vernon, *Economics of Regulation and Antitrust*, Cambridge MA, MIT Press (2005) for an overview of the liberalization process in several network industries.

¹⁰ The roughly 50 Bell System companies were a small percentage of the approximately 1600 franchised monopoly providers of telecommunications services. They did, however, account for the vast majority of subscribers.

Thus, the first move toward “liberalization” (non monopoly provision) arose in the US telecommunications sector through a distinctly adversarial process. The new operators functioned as *neither* competitors *nor* customers of the Bell System.¹¹ An importance difference between this and the postal situation was that the large corporations that chose to provide their own *private line* services could do so without any participation from AT&T. That is, they could produce internally a complete, end-to-end service that they had previously purchased in the marketplace. In contrast, no amount of presorting could result in the provision of a useful final product. Presorting mailers were completely dependent upon the delivery arm of the Postal Service as a partner in the provision of an economically valuable service. Similarly, when sale to third parties of point-to-point telecommunications service was permitted on a common carrier basis, such carriers were able to operate in competition with AT&T on a completely independent basis.¹² Such is not the case for worksharing consolidators.

To summarize the discussion thus far, the early days of liberalization in the U.S. postal and telecommunications sectors were significantly different. In telecommunications, each step of the way from the Bell System total monopoly was painfully adversarial. The networks of self providers and other common carriers were separate from AT&T’s network. The issue of *access pricing*, had not yet arisen for the simple reason that there was no access. In contrast, the evolution of postal worksharing was, to a large extent, characterized by consensus.¹³ Not

¹¹ One might say that such firms “competed” with AT&T *for their own business*. AT&T attempted to recover this business by introducing substantial *volume discounts*. This resulted in protracted regulatory and antitrust proceedings that I will not go into here. However, it is interesting to note that the alleged victims of AT&T’s alleged anticompetitive behavior were not the self-providing firms, but rather the manufacturers that sold them the necessary equipment.

¹² In telecommunications terminology, the networks of these other common carriers were not *interconnected* with that of AT&T.

¹³ See PRC Order No. 536 (Sept. 2010) at 42:

The law delegates that authority to the Commission to ensure that the limit on workshare discounts is applied in a manner that is consistent with its underlying purpose. As noted above in section III.

coincidentally, the Postal Service and its partner/competitors were thoroughly interrelated both operationally and financially. Worksharing discounts determined the terms of access to the delivery network operated by the Postal Service as a legal monopoly.

Access pricing (and interconnection) became an issue in telecommunications when the courts overruled the FCC and allowed MCI to offer its Execunet Service. This service took telephone calls originating on a Bell System local exchange network, transmitted them over MCI's long distance facilities, and terminated them on a distant Bell System local exchange network. Clearly, the success of this business plan depended crucially on the prices MCI had to pay for its originating and terminating access to Bell System local networks. Determination of these access prices was a highly adversarial process right from the beginning. Ingo Vogelsang provides a detailed discussion of the economic and public policy issues revolving around access pricing in U.S. telecommunications since the advent of competition.¹⁴ To oversimplify a topic rich in theoretical and institutional complexities, the regulatory arena in telecommunications became a battleground between *access seekers* arguing for an access charge as close as possible to the marginal (or average incremental) cost of providing access and *access providers* arguing for an access charge based on the Efficient Component Pricing rule. With the help of regulators, the access seekers ultimately prevailed. As Vogelsang points out, “[i]n practice cost-based access charges with small common cost markups have come to prevail worldwide.”¹⁵

E., there is a consensus among the commenters that its underlying purpose is to secure the economic efficiencies that are obtained when workshare discounts are no greater than the those identified as optimal by the ECP rule. The economic benefit obtained when the ECP rule is followed is that the Postal Service will do the work required to produce the work-saving characteristic as long as it is the least-cost producer.

¹⁴ Ingo Vogelsang, *Journal of Economic Literature*, Vol. XLI (Sept. 2003), at 830-862.

¹⁵ *Id.* at 838. In the postal context, this would be equivalent to a *price* for workshared products only slightly above the unit costs of delivery *only*.

As I hope the preceding discussion has indicated, the contrast between the consensus on ECP worksharing postal discounts and the continuing battle over telecommunications access can be summarized quite succinctly:

In the postal sector, ECP methodology determines a *floor on downstream access rates (ceiling on worksharing discounts)*. In telecommunications (and, to my knowledge, all other liberalized network industries) ECP methodology determines a *ceiling on downstream access rates*.

The reasons for this striking difference are both historical and institutional. The ECP (100 percent pass through of avoided cost) rule for postal worksharing was the culmination of a long, *regulator driven* process under the PRA. The Postal Service acquiesced because, by design, ECP left its unit contributions unaffected. Larger discounts were rejected on the (correct) grounds that they would encourage entry of inefficient upstream providers.¹⁶ Throughout, the focus was on productive efficiency, *not* liberalization. The creation of competitive presort markets was an unintended byproduct. In contrast, ECP pricing of telecommunications access was advocated by incumbents, but rarely achieved. Ironically, a persuasive argument against it was precisely the fact that it would leave incumbent profitability unchanged relative to the monopoly situation. Regulators and access seekers combined to drive access rates close to incremental costs. Promoting competition, not minimizing costs, was *the* driving force behind access policy in telecommunications.

¹⁶ Larger discounts have been proposed, however. For example, Valpak argued in R2006-1, "Short of new subclasses for categories like letters and flats, which are not worksharing variants of each other, Valpak believes the appropriate way to recognize costs is for rate cells within a subclass to be based on cost times the subclass coverage, except that rate differences between cells that relate to worksharing should be at least 100 percent of a relevant cost avoidance based on average attributable cost." R2006-1, Valpak Response to NOI Nos. 2 and 3 at 17.

III. Postal Service Incentives under Global Price Cap Regulation

What happened to shake the “ECP consensus” for cost-based worksharing discounts?

The primary cause is the Global Price Cap regime¹⁷ introduced by the Commission to implement the PAEA. The pricing freedom introduced under the Global Price Cap regime following the PAEA enabled the Postal Service, absent Commission objection or direction, to reduce worksharing discounts below avoided cost if it desired to do so for whatever reason.¹⁸ The PAEA explicitly prohibited worksharing discounts in excess of avoided costs but left it to the Postal Regulatory Commission to establish any restrictions on discounts less than avoided costs. As I will discuss below, such restrictions should be part and parcel of any “modern system of rate making” established under the PAEA. Here, I will briefly discuss the possible incentives which the Postal Service might have to reduce worksharing discounts below avoided costs.

The Postal Service had agreed to avoided cost (ECP) based worksharing discounts for so long that most participants in the postal policy debate seemed to truly believe that the Postal Service would not wish to reduce discounts below avoided cost if given the opportunity. Unfortunately, this view ignores the historical evolution of worksharing discounts sketched above. The Postal Service *eventually* came to accept the ECP/avoided cost standard largely because it was subject to break-even, cost based regulation under the PRA. As I have

¹⁷ The term Global Price Caps refers to a system of Price Cap regulation in which access prices (the prices of workshared products) and retail prices are treated symmetrically in the price cap formula. That is, the regime is one of “global” price cap regulation. For theoretical analyses of global price cap regulation in the postal sector, see Billette de Villemeur, Etienne, Cremer, Helmuth, Roy, Bernard and Toledano, Joëlle, “Optimal Pricing and Price-Cap Regulation in the Postal Sector,” *Journal of Regulatory Economics*, Vol. 24, No. 1 (2003) and De Donder, Phillippe, Helmuth Cremer, Paul Dudley, and Frank Rodriguez “Pricing and Welfare Implications of Alternative Approaches to Setting Price Controls in the Postal Sector,” In *Progress toward Liberalization of the Postal and Delivery Sector*, New York: Springer (2006). See also the discussion and references in Section 5, below.

¹⁸ “The Commission finds that of these two aspects of the ECP rule, only the former is reflected in section 3622(e). While the Commission considers ECP an economically beneficial pricing practice, Congress acted to prevent workshare discounts that are too large, but did not include language specifically to prevent discounts that do not pass through the full measure of costs avoided.” PRC Order 536, pp. 37-38.

emphasized repeatedly recently,¹⁹ incentives may be quite different for a profit-seeking firm subject to price cap regulation.

Let me try to make this issue concrete. In an attempt to improve pricing flexibility on the part of the Postal Service, the PAEA mandated that the Commission implement a Price Cap Regime to control the prices of the Postal Service's market dominant services. As noted above, the Commission instituted a Global Price Cap regime in which the prices of workshared and non-workshared products are treated symmetrically under the cap. The simple example of Section 2 can be used to illustrate the possible "exclusionary" effects of this regulatory policy change.

As above, the Postal Service provides two market dominant services: an end-to-end service and a workshared (or "access") service. In the case of the workshared service, competitive consolidators provide upstream, sorting functions and the incumbent provides only delivery. Assume that, initially, the incumbent was regulated to break-even by cost of service regulation and the worksharing discount was set equal to the upstream unit costs of the incumbent; i.e., according to the ECP. Now suppose a price cap regime is introduced to control the prices of the incumbent and that, as is common, the price weights are set equal to the actual market quantities in the previous period.

This condition requires that, *when evaluated at last period's volumes*, the stamp price and discount chosen by the incumbent cannot be expected to yield more than last period's revenues.²⁰

¹⁹ John C. Panzar: "Interactions between Regulatory and Antitrust Policy in a Liberalized Postal Sector," In: Crew, Kleindorfer and Campbell (ed.) *Handbook of Worldwide Postal Reform*, Edward Elgar, (2008); "Postal Service Pricing Policies after PAEA," USPS OIG RARC-WP-10-002 (2010); "Postal Service Pricing Policies after the Transition to Price Cap Regulation," *Review of Network Economics*, Vol. 10, Issue 3, (2011).

²⁰ This is the basic *Laspeyres price cap index formula* most commonly used in the practice of price cap regulation. The need for some index formula arises whenever price cap regulation is applied to a group (or *basket*) of products. Here, and elsewhere in this paper, I am holding all other prices of the Postal Service constant. This allows me to express the price cap constraint only as a function of the variables of interest. Obviously, *all* the rates of interest can be increased under a price cap as long as the impact is offset by decreases in other rates. However, under the assumption that other rates are held constant, the relevant constraint facing the Postal Service is the simple one used here.

When the constraint is binding, the price cap constraint allows the incumbent to increase its stamp price *only if* it also increases its worksharing discount. In this situation, it is possible, but not certain,²¹ that the Postal Service would have a profit incentive to *reduce* the worksharing discount below its initial ECP level.

For example, Panzar (2008; 2010) presented a simple model of upstream worksharing in which the *introduction* of Global Price Cap regulation would provide incentives for a profit maximizing postal operator, to reduce worksharing discounts below their initial avoided cost levels. The intuition behind the result is quite simple. Despite the efficiency advantages of ECP discounts, the postal operator can increase its profits by exploiting its *monopsony* power in the market for upstream worksharing services. Consolidators and presorting mailers have no alternative provider of delivery services. It is true that, by reducing its discount below avoided cost, the operator loses money on the *marginal unit* it has “captured” from a more efficient consolidator or mailer. However, it gains an added contribution on all the *inframarginal units*, which continue to be processed by alternative providers but receive a lower discount.

My analysis was successful in illustrating *possible* incentives for the Postal Service to depart from ECP discounts. For some, the model used was too simple to be persuasive that this was likely to be a practical problem.²² However, others misconstrued the point I was trying to make entirely and argued that, as a matter of policy, the Postal Service *should* consider reducing worksharing discounts in order to increase profits.²³ Let me be clear about my intended message:

²¹ Indeed, if the elasticity of the more workshared product is higher than that of the less workshared product, the opposite could be true.

²² The primary shortcoming of the theoretical model was that it did not use a sufficiently “rich” demand system. It exhibited the desired positive cross elasticity of demand between workshared and non workshared products, but it did not allow for total demand to increase with the size of the discount. This has been a consistent finding of empirical demand studies.

²³ USPS OIG, RARC-WP-10-005, “Assessment of Worksharing,” (2010).

Under Global Price Cap regulation, the Postal Service may have an incentive to reduce worksharing discounts, but to do so would be exclusionary.

IV. Towards a “modern system for regulating rates”

I will not presume to advise the Commission on the legal interpretation of section 3622(e). As noted above, the Commission has previously observed that “Congress acted to prevent workshare discounts that are too large, but did not include language specifically to prevent discounts that do not pass through the full measure of costs avoided.”²⁴ Of course, the explicit prohibition on discounts above 100 percent was the direct result of the legislative negotiations required to ensure passage of the Act. The absence of an explicit statement in the Act does not relieve the PRC from its *responsibility* to design a modern system for regulating rates and such a system should guarantee that worksharing discounts are non exclusionary. This requires that discounts be set at 100 percent of avoided cost.²⁵

There are two bases for this conclusion. First, as discussed in the previous section, it is well known that worksharing discounts less than the ECP standard will exclude equally efficient competitors. Since the upstream processing markets in question are part of the production of market dominant services, the behavior of the Postal Service in such markets is exempt from scrutiny by the antitrust authorities. It is therefore the Commission’s responsibility to prevent anticompetitive behavior on the part of the Postal Service. Second, the PAEA also instructed that the Commission,

²⁴ PRC Order No. 536 at p. 38.

²⁵ See PRC Order 43 (October 29, 2007) (“The phrase ‘workshare discount,’ properly understood, refers to a price concession reflecting (ideally at 100 percent passthrough) cost savings to the Postal Service generated by substitution of mailer activity for *work that the Postal Service would otherwise have had to perform*. If the discount is properly designed, and does pass through 100 percent of the savings, then a mailer who does not take advantage of it is not enjoying an ‘internal cross-subsidy.’ So far as the workshared mail is concerned, the Postal Service is shedding costs precisely equal to the revenue it gives up by reason of the discount. In other words, the Service is (as it should be under efficient component pricing) indifferent as to whether it or the mailer performs the function on which the discount is based”)(citing GCA Reply Comments, October 9, 2007, at 6.)(Footnotes omitted; emphasis in original.).

by regulation establish (*and may from time to time thereafter by regulation revise*) a modern system for regulating rates and classes for market-dominant products,” 39 U.S.C §3226(a) [*emphasis added*], and “establish and maintain a just and reasonable schedule for rates and classifications”²⁶

I submit that a system of Price Cap regulation that does not guard against exclusionary access prices does not satisfy that directive. Let me explain.

As noted earlier, the U.S. postal policy debate has always been atypical with respect to access pricing. Early on, ECP principles established a floor on access prices (i.e., a ceiling on workshare discounts). In other liberalizing network industries, the case has been exactly the opposite: ECP principles constitute a ceiling for access prices. Thus, in combining Price Cap regulation with access price regulation, it was recognized that the system must be augmented with conditions to prevent *vertical price squeezes*: i.e., differences between wholesale and retail prices that excluded equally efficient upstream entrants.²⁷ Early Price Caps on telecommunications access were administered separately from the Price Caps on retail services. However, academic analyses in the mid 1990s touted the theoretical advantages of a Global Price Cap system that includes both access prices and retail prices in the same formula.²⁸

Global Price Caps do not enjoy widespread application in telecommunications.²⁹ However, they have been studied extensively in the postal literature.³⁰ Despite their potential theoretical advantages, Global Price Caps do not automatically prevent the dominant firm from engaging in exclusionary pricing. Thus, Laffont and Tirole, the “inventors” of Global Price Caps advocate the inclusion of additional safeguards.

In addition, they [Laffont and Tirole] want to reduce any incentives for

²⁶ 39 U.S.C. §3622(a).

²⁷ See Vogelsang (2003) at 842.

²⁸ Jean-Jacques Laffont and Jean Tirole: “Access Pricing and Competition,” *European Economic Review*, 38, pp. 1673-1710. (1994); “Creating Competition through Interconnection: Theory and Practice,” *Journal of Regulatory Economics* 10, pp. 227-56 (1996); and *Competition in Telecommunications*, Cambridge, MA: MIT Press (2000).

²⁹ “Global price caps have so far been too bold for any regulator to implement.” Vogelsang (2003), p. 843.

³⁰ Billette de Villemeur et. al.(2003) and De Donder et. al. (2006)

anticompetitive behavior by imposing an imputation rule for access pricing in addition to the price caps. Thus, any individual access charges would have to obey both the price cap and the imputation rules.³¹

An imputation rule is a constraint designed by the regulator to prevent exclusion through a vertical price squeeze. In telecommunications, it is a requirement that the wholesale price the dominant firm charges to reselling competitors is no larger than its own retail price *minus* its upstream unit costs. Thus, the standard imputation condition is often referred to as “retail minus.” In the worksharing context, this translates directly to the requirement that worksharing discounts must be *no less* than avoided costs.

As a final example, I cite the views of Ofcom, the new UK postal regulator regarding access to Royal Mail’s delivery network:

Since Royal Mail is a vertically integrated operator (that is active in retail markets and the wholesale downstream markets), it would have the incentive and ability to abuse its market power downstream by favouring its own retail operations when providing access to its network.³²

Ofcom is in the process of designing the future regulatory regime for Royal Mail. The above quote makes clear that the need to guard against exclusionary behavior on the part of Royal Mail is an important concern. Ofcom also noted that, while it has the power to deal with exclusionary behavior on an *ex post* basis under competition law, it viewed it preferable to attempt to deal with the problem on an *ex ante* basis through access policy.³³

³¹ See Vogelsang (2003) at 843.

³² Ofcom, *Securing the Universal Postal Service, Annex 7 – Access*, (Oct. 2011) at 14, ¶ 2.68.

³³ See *id.* at 14, ¶ 2.69.

V. Conclusion

Worksharing discounts less than avoided costs are *exclusionary*. They prevent equally efficient competitors from participating in the market for upstream mail processing. For this reason, an ECP based access pricing *ceiling* (worksharing discount *floor*) should be a part of any modern system for regulating rates. In the context of the PAEA, this would require adherence to the avoided cost standard for all worksharing discounts. This somewhat unusual situation results from the atypical PAEA requirement that ECP also be used to determine an access pricing *floor*.

Thus the current Global Price Cap system used to regulate the rates of Postal Service market dominant products does not meet the PAEA standard. Fortunately, under Section 3622(a), the Commission has the authority to create a modern system for regulating rates by adding the ECP requirement.

APPENDIX

Autobiographical Sketch of John C. Panzar

I am Professor of Economics at the University of Auckland. I am also the Louis W. Menk Professor, Emeritus at Northwestern University (Evanston, Illinois), where I taught from 1983 to 2008. I earned my Ph.D. in Economics from Stanford University in 1975. I have also taught as a visitor at UC Berkeley (1977), the University of Pennsylvania (1983), and the University of Auckland (1998-2004). Thus, I have taught graduate and undergraduate courses in Industrial and Regulatory Economics for more than 25 years. Many of my former graduate students have gone on to staff positions at the U. S. Department of Justice, the Federal Trade Commission, the Federal Communications Commission, and the Illinois Commerce Commission.

From 1974 to 1983 I was a Member of Technical Staff at BTL. I was the Head of the Economic Analysis Research Department at BTL from 1980 to 1983. My duties at BTL involved conducting original research on the fundamental economic principles of regulatory pricing and costing analysis as well as consulting on regulatory and antitrust issues involving the Bell System.

My published research includes two books and numerous articles in major professional journals. Most of my publications are focused on pricing and costing issues facing multi-product network industries such as telecommunications, electric power, railroads, and postal services. I am an Associate Editor of the *Journal of Regulatory Economics* and a member of the Editorial Board of *Information Economics and Policy*. These journals publish specialized contributions on regulatory theory and practice. I am also a founding co-editor of the *Review of Network Economics*, an internet journal that publishes articles of relevance both to academic researchers

and practitioners working in network industries. Finally, since 1990, I have been an active participant in more than a dozen international conferences on postal economics.

I have consulted extensively on regulatory policy issues. In addition to consulting for numerous corporations, over the two past decades I have served as an economic consultant to the United States Postal Service, Federal Aviation Administration, the World Bank, the U.S. Federal Trade Commission, the U.S. Postal Rate Commission, the U.S. Postal Regulatory Commission, the New Zealand Commerce Commission, Deutsche Telecom, Deutsche Post, Royal Mail, and Senate of the Commonwealth of Puerto Rico.

I have testified before this Commission on numerous occasions, beginning with Docket No. R84-1. Over the years, I have also provided written and/or oral testimony before the U.S. Congress, the U.S. Interstate Commerce Commission, the U.S. Federal Communications Commission, the Pennsylvania Public Utilities Commission, and the U.S. Department of Justice.