

Postal Price Cap Regulation: United States Experience Since 2006

Michael J. Ravnitzky¹

ABSTRACT

This paper describes policy and technical issues relating to postal price cap regulation in the United States since the enactment of the postal reform law, the Postal Accountability and Enhancement Act (PAEA) in 2006. The price cap regulation of postal services in the U.S. is briefly compared to the forms of price cap type incentive regulation implemented in other regulated industries, and for postal systems in other countries. The PAEA's focus on predictability and stability of rates is a key differentiator between U.S. postal price cap and other types of price cap regulation.

1. INTRODUCTION

The inflation based price cap or annual rate limitation for most mail services is considered the hallmark of the Postal Enhancement and Accountability Act (PAEA), the 2006 postal reform law which provides for regular and predictable rate changes for market-dominant types of mail. The PAEA specifies that the maximum annual percent rate increase be based on the change in inflation of the prior 12 months, unadjusted for seasonal variation.² Reisner, et al. (2008) states that no feature of the PAEA is more important to the mailing community than the rate limitation (price cap).³

The PAEA arose in part in response to dissatisfaction with the prior rate-setting process, which involved 10 or more months of litigated cost-of-service proceedings preceded by

¹ The views expressed are solely those of the author. They do not represent the opinions of the Postal Regulatory Commission or any Commissioners.

² 39 U.S.C. § 3622(d)(1)(A).

³ Reisner, et al. (2008), at 251. The authors point out that price predictability may even be more important than price stability. *Id.*

lengthy preparation by the Postal Service. That process, and the resulting irregular spacing of rate changes, resulted in uncertainty and unpredictability regarding postal rates for mailers, the Postal Service and the public. In its place, the PAEA established a price cap annual limitation that limited price increases and secondarily encouraged postal efficiency and lower postal cost.

The price cap limits average price increases to the rate of inflation. It is designed to simulate the benefits of competition regulated companies (including traditional monopoly services) operating in a noncompetitive environment but one that may be changing.⁴ The effect is to incent efficiency and share the cost savings with ratepayers while maintaining a relatively “market-based” price structure, with less litigation, regulatory lag, or political interference. It is typically intended to operate for a period of time, typically on the order of 4 - 5 years, before being reviewed for changes consistent with the changing business environment.

Price cap regulation in other industries and postal price cap regulation in other countries typically permits an initial reassessment of the revenue requirement and an initial rate rebalancing, and also, to preserve the regulated company’s financial viability, adds to the inflation-based price cap an adjustment for unexpected exogenous events (Z-factor) that impact costs. However, it also includes an adjustment to transfer a portion of the rate-lowering productivity improvements to customers (X-factor).

The U.S. postal price cap is conceptually simple, but its implementation has raised a number of policy and technical issues. The PAEA establishes broad policies through its listed Objectives and Factors, but translating those policies into regulation requires a number of decisions. Such decisions include resolving the tension between the inflation-based price cap and products or product groupings that don’t cover their costs (*e.g.*, are being subsidized); before the fact (*ex ante*) versus after the fact (*ex post*) regulation; how changes to mail preparation requirements and new product offerings/promotions affect

⁴ *See, e.g.*, Sappington (2005); Crew and Kleindorfer (2009). Littlechild (1983) originated and popularized the price cap incentive regulation concept.

price cap calculations; and the treatment of quality of service with regard to price cap calculations.

Certain issues may merit attention in order to avoid the need for policymakers to weigh in to resolve the issues, *e.g.*, the extent to which products are included within price-capped product groupings and how service quality may be changed to reflect changes in postal demands and costs. Among the technical issues that have had to be addressed by regulation are calculation of the price cap for promotional rates, rate decreases, rate change timing, and complications from the calculation of unused rate allowance.

The differences between the PAEA price cap system and typical price cap incentive regulation outlined in the economic literature are useful in assessing the degree to which the price cap system has satisfied the Objectives and Factors of the PAEA, and other postal policy considerations in U.S. law. The Postal Regulatory Commission's (PRC) ten year review of the rate system, mandated by the PAEA, will provide a good opportunity to evaluate how the PAEA's price cap system differs from other price cap systems, to assess how those differences affect the functioning of the regulatory system, and to determine any improvements that are needed.

Section 2 presents a description of the U.S. postal price cap system and how it has proceeded so far. Section 3 briefly describes typical price cap regulation and Section 4 discusses the U.S. postal price cap system. Section 5 describes price cap policy issues applicable to the US. Section 6 describes technical/calculation issues arising from implementation of the PAEA. Section 7 identifies several areas that could potentially be considered in a forthcoming ten year review mandated by PAEA. Section 8 sets out the author's conclusions.

2. BACKGROUND

From 1970 through 2006, the Postal Reorganization Act (PRA) set the postal rates of the United States Postal Service (USPS) using a "cost of service" model and a revenue

requirement.⁵ Both the revenue requirement and the rates could be modified by the Postal Rate Commission, subject to override by the USPS Board of Governors. *Id.*

In 2006, a new law, the Postal Accountability and Enhancement Act established a new regulatory system. The hallmark of the new system is a price cap, in which price increases for market-dominant products are limited to the rate of inflation.⁶ The law specified the use of the Consumer Price Index for All Urban Consumers (CPI-U), not seasonally adjusted for the previous 12 months. The PAEA assigned the renamed Postal Regulatory Commission (PRC) responsibility to implement the new system, to conduct annual compliance determinations,⁷ and to provide Congress with input after five years (in the Section 701 Report), and also to review the functioning of the regulatory system ten years after the enactment of the law.

The PAEA divided all postal products⁸ into two categories: competitive products, and market-dominant products.⁹ Market dominant products are those in which the USPS can exert a high degree of market authority, as defined in the law.¹⁰ The law does not limit price increases for competitive products, but it does designate a minimum price to prevent USPS from subsidizing competitive products from market-dominant revenues.

The PAEA specified a set of 9 Objectives and 14 Factors which, along with the policies contained in title 39 of the U.S. Code, would govern the new system of rate regulation for

⁵ Postal Reorganization Act, Pub. L. 91-375 (1970).

⁶ 39 U.S.C. § 3622(d)(1) (referencing the Consumer Price Index – Urban (CPI-U)).

⁷ The PRC is required to make a determination of noncompliance if appropriate within 90 days after receiving the USPS Annual Report. 39 U.S.C. § 3653(b)(1).

⁸ Any non-postal products, to the extent they are permitted, are designated as either Market-Dominant or Competitive. 39 U.S.C. § 404(e)(5).

⁹ “The market-dominant category of products shall consist of each product in the sale of which USPS exercises sufficient market power that it can effectively set the price of such product substantially above costs, raise prices significantly, decrease quality, or decrease output, without risk of losing a significant level of business to other firms offering similar products. The competitive category of products shall consist of all other products.” 39 U.S.C. § 3642(b)(1).

¹⁰ *Id.*

market-dominant products.¹¹ An initial rulemaking established the framework of the new system of rate regulation.¹² The law required establishment of a regular schedule of price changes.¹³ A transition rule permitted an initial reassessment of the revenue requirement or initial rate rebalancing.¹⁴ The PRC was required to reassess the statutory minimum contribution to institutional costs of competitive products after five years, and every five years thereafter.¹⁵

The PAEA specified additional details: the basis of the price cap, price cap groups, deadlines for notice and review of price changes, provision for the use of and expiration of unused rate authority, provision for above-CPI price adjustments in case of extraordinary or exceptional circumstances (widely known as an “exigency” case)¹⁶, and a ten-year re-appraisal of the regulatory system. The law specified that findings of noncompliance with the law permitted the PRC to fashion remedies outside the price cap.

¹¹ The Objectives are (1) to maximize incentives to reduce costs and increase efficiency; (2) to create predictability and stability in rates; (3) to maintain high quality service standards established under section 3691; (4) to allow the Postal Service pricing flexibility; (5) to assure adequate revenues, including retained earnings, to maintain financial stability; (6) to reduce the administrative burden and increase the transparency of the ratemaking process; (7) to enhance mail security and deter terrorism; (8) to establish and maintain a just and reasonable schedule for rates and classifications, however the objective under this paragraph shall not be construed to prohibit the Postal Service from making changes of unequal magnitude within, between, or among classes of mail; (9) to allocate the total institutional costs of the Postal Service appropriately between market-dominant and competitive products. 39 U.S.C. § 3622(b). The Factors are itemized at 39 U.S.C. § 3622(c).

¹² Docket No. RM2007-1, Order No. 43, Order Establishing Ratemaking Regulations for Market Dominant and Competitive Products, October 29, 2007 (Order No. 43). The rules for implementing the price cap are found in 39 CFR Part 3010: Regulation of Rates for Market Dominant Products.

¹³ 39 U.S.C. § 3622(d)(1)(B).

¹⁴ 39 U.S.C. § 3622(f).

¹⁵ 39 U.S.C. § 3633(b).

¹⁶ The law established criteria permitting exigency price increases under certain circumstances in addition to price cap changes. The so-called “exigency” increase could occur provided that the regulator “determines, after notice and opportunity for a public hearing and comment, and within 90 days after a request, that the adjustment is reasonable and equitable and necessary to enable the Postal Service, under best practices of honest, efficient and economical management, to maintain and continue the development of postal services of the kind and quality adapted to the needs of the United States. *See* 39 U.S.C. § 3622(d)(1)(E). *See also* 39 U.S.C. § 101, which provides general postal policy guidance.

The PAEA specified that USPS would reserve (bank) the pricing authority that it did not use in an annual price adjustment, and could hold it for five years.¹⁷ The unused pricing authority (the banked amount) must be used on a first-in first-out (FIFO) basis.¹⁸

The PAEA recognized the importance of transitioning properly to the new price cap system by allowing a final rate case under the previous law.¹⁹ The PAEA was silent on adjustments for exogenous events or productivity improvements.

The U.S. postal price cap system includes both ex ante (before the fact) regulation and ex post (after the fact) regulation. Price adjustments are reviewed and provisionally approved by the regulator before implementation, with an abbreviated timeframe for review.²⁰ The regulator also provides a more conclusive after the fact review of rates and service in the Annual Compliance Determination (ACD) proceedings.²¹ Complaints are another type of ex post regulation, but one that shifts much of the burden to the postal customer.²²

¹⁷ 39 U.S.C. § 3622(d)(2)(ii).

¹⁸ 39 U.S.C. § 3622(d)(2)(C)(iii)(III).

¹⁹ USPS had an opportunity during the first year after enactment of the PAEA to initiate a cost of service rate proceeding. A final rate case could have provided USPS the opportunity to seek to build into its revenue requirement the increased burdens imposed by the PAEA (such as the prepayment of Retiree Health Care Liability costs, and workers compensation payments), as well as to better align other rates and discounts with costs prior to entering the price cap environment. Such a case would also have permitted a more comprehensive alignment of rates with costs. USPS did not avail itself of its statutory opportunity to file a final rate case under the old regulatory system. The two general rate cases completed immediately prior to the PAEA (R2001-1 and R2005-1) adopted across-the-board price changes, which limited the opportunity to true up rates. R2006-1 was filed prior to the enactment of PAEA and was completed after the law took effect.

²⁰ See 39 CFR 3010.13(j).

²¹ For example, the pre-implementation review does not account for the effect of price changes on billing determinants. 2011 ACD at 94.

²² The current complaint process provides for a hearing, which can trigger a lengthy legal process. In most cases, USPS is the primary source of data required to sustain a complaint. A complainant is put in the position of being obliged to purchase services from USPS during and after the complaint has been concluded. Finally, while the PAEA granted the PRC broad remedial authority, remedies have thus far been prospective, not retrospective. For example, 39 U.S.C. § 3681 bars recompense for mailer overpayment of rates or fees, even following § 3662 complaint proceedings.

According to the Commission's Section 701 Report, the PAEA price cap system has generally resulted in stable and predictable rates.²³ Within a class of mail, USPS has the pricing flexibility to raise some rates in excess of the annual limitation, provided the weighted average of all the rates in the class of mail does not exceed the cap.

3. INCENTIVE REGULATION

Incentive regulation (including price cap regulation) is a mechanism originated to simulate the benefits of competition in markets lacking vigorous competition.

a. The Economic Literature

A price cap regulation plan typically specifies the length of time for which the plan will operate before it is reviewed.²⁴ A too-short price cap plan can diminish the incentive to innovate and reduce operating costs. A too-long price cap plan can result in the regulated entity claiming an unfairly large share of economic rents²⁵ due to productivity increases in a static price cap, and may be detrimental to customers. Or the situation may result in insufficient return and insufficient capital, and leave the regulated provider at financial risk and unable to accomplish its universal service obligations.²⁶

According to Vogelsang (2002) and Bouin (2010), incentives for cost reduction are more effective the longer the price cap period. On the other hand, the price cap must remain viable in response to changing circumstances through a transparent adjustment process specified in advance. If adjustment proves unnecessary, then the price cap arrangement can continue unrevised.

²³ See Section 701 Report at 28. The primary exception to the predictability and stability of rates has been the temporary exigency surcharge requested by USPS and permitted by the PRC in Docket No. R2013-11.

²⁴ Sappington (2010) at 19.

²⁵ Economic rents are any payments to a factor of production in excess of its opportunity cost, in other words imperfect competition.

²⁶ See, e.g., Crew and Kleindorfer (1992) at 112.

Crew and Kleindorfer (1992) discuss what they call the “starting point”, the origination state of the regulated structure, such as setting the initial price cap index to assure stability during the transition to price caps and to recover an acceptable return on capital over the price cap regulation period.²⁷ The authors describe the need for sufficient capital to ensure that the regulated entity can adequately fulfill its service obligations.

According to Bouin, et al. at 87 (2010), the regulatory framework should lead the postal operator to maintain an acceptable level of profitability, subject to market conditions, and subject to the expectation that the operator achieves productivity gains at least as great as those foreseen at the initialization of the price, these gains being shared appropriately between the operator and the customers. Bouin, et al. says the framework should account for risks on the demand side, thus allowing a sharing of volume-driven risks between the operator and customers. Finally, the structure should provide cost-reduction incentives, allowing the operator to collect gains beyond the norm set by the contract.

Typically, price cap regulation plans include a Z-factor adjustment to allow for the financial impact of unanticipated events. Events covered by a Z-factor typically exhibit three distinguishing characteristics: 1) the event is beyond the control of the regulated firm; 2) the event has a pronounced financial impact on the firm; and 3) the event has a disproportionate effect on the regulated firm that is not accounted for by other elements of the price cap regulation plan.²⁸

b. Industry Implementation

In most examples of price cap regulation, the regulator can vary the parameters to adapt to the environment in which it is implemented.²⁹ Typically, at the outset, the regulator determines the revenue needed for a reasonable rate of return, and rebalances rates to

²⁷ *Id.*

²⁸ Sappington (2010) at 17-19. According to Sappington, Z factor adjustments are usually not “all or nothing” adjustments; rather, financial responsibility can be apportioned between the firm and the adjustment. *Id.* at 18, n.46.

²⁹ Sappington (2010) at 1.

align prices more closely with underlying costs. *Id.* The regulator sets the maximum rate (the price cap) at which inflation-adjusted prices can increase each year until the time the plan is scheduled to be reviewed. *Id.* This is typically done using an X-factor, that is subtracted from the annual price cap. In addition, the system provides for explicit adjustment to allow for external circumstances that disproportionately affect the firm (a Z-factor). Many price cap systems include a quality of service adjustment or incentive. There is usually a predetermined timeframe (typically 4 – 5 years) between regulatory reviews.³⁰

In many of these cases, the regulated company has access to capital, is well capitalized and accountable to residual claimants.³¹ (Residual claimants receive the profits that remain after expenses.) Price caps are often implemented in industries exhibiting growing demand and improving technology to serve that demand. And, in many cases, the regulated company also faces competition (and potentially growing competition) in some areas of its business (*e.g.*, telecom and electric power).

A price cap “basket” is a group of products for which the price cap is collectively imposed.³² The number and size of products subject to the price cap is an important factor in any price cap system. A large price cap basket affords more flexibility to the postal operator. However, a large group also allows for the possibility of increased divergence from the average for prices for individual products within the basket. The size of the various products within the basket can also affect the extent of pricing divergence. This is because a sizable change in one product is averaged by weighted volume with all the other products in the basket.

³⁰ *See, e.g.*, Laffont (1993) at 17.

³¹ *See* Laffont (1993), at 11. The existence of residual claimants can be an important factor in the business success of a regulated entity. *See also* Crew and Kleindorfer (2000) (“To be effective PCR requires the profit motive which requires residual claimants if it is to operate. Absent residual claimants PCR lacks the incentives for efficiency that support its implementation. (...) With public enterprise there is effectively an absence of residual claimants.”)

³² *See* Sappington (2010) at 20-21.

Sappington notes that once competition has developed to the point where it alone can constrain prices, those competitive services should be removed from price cap regulation.³³

4. PRICE CAP REGULATION UNDER THE PAEA

The U.S. postal price cap system enacted under the PAEA has several features that differ from typical price cap systems described in the literature. The PAEA has as a major focus the predictability and stability of postal rates changing at regular intervals, while other price cap systems appear to focus on efficiency gains and structuring profits. Importantly, USPS is a public enterprise with no specific residual claimants and no real access to capital. Unlike some other industries under price cap regulation, the USPS is in a declining-demand industry served principally by a labor-intensive operation. Like other price cap regimes, though, the PAEA has aspects of both ex ante and ex post review. It permitted reassessment of the USPS revenue requirement and realignment of rates prior to implementation of the rate cap, although it did not mandate such a reassessment or a rate of return.³⁴ And the USPS did not request any revenue increase, rate changes, or a specified rate of return prior to the price cap implementation.

Unlike other price cap arrangements, the PAEA did not include an X-factor to transfer productivity improvement to customers, nor did it include a Z-factor to accommodate external economic impacts although it did permit an exigent increase under certain stringent conditions. The law was silent on quality of service adjustments but did require service quality performance monitoring, measurement and reporting. The law was silent on differential application of the price cap for newly introduced products or for temporary rate/service promotions. The law provided the opportunity to remove products deemed competitive from their market-dominant Class, and thus exempt them from the price cap. It established requirements for Negotiated Service Agreements (NSAs) between the USPS and its customers. The PAEA did not apply special focus on

³³ Sappington (2010) at 20-21.

³⁴ To an extent, this particular factor accounts for some of the USPS's current financial difficulties.

application of the price cap on retail products used by consumers as opposed to bulk products. An important feature of the PAEA, albeit one not tied to the price cap, is that the PAEA also limited the amount of workshare discounts to the costs avoided by the USPS for the worksharing activity.

The PAEA applied the price cap limitation to each market-dominant Class of mail in effect at the time of its enactment.³⁵ USPS can raise and lower the price of products within a class provided that the class-weighted average rate increase does not exceed the cap.

The PAEA price cap system has substantially reduced the costs and complexity of litigation style cost of service rate adjustment proceedings. However, the new regulatory system has had some secondary effects because certain provisions of the PAEA necessitate verifiable and up-to-date cost methodologies, unlike price caps as applied in other industries. (Under PAEA, for example, products must cover their costs, workshare discounts must not exceed avoidable costs, and competitive products as a whole must make a minimum contribution to institutional costs.)

It is important to note that the abbreviated PAEA rate proceedings provide a narrowed timeframe during those proceedings for the Commission and interested persons to analyze and validate the complex data required for cost methodologies. However, the PRC has provided additional opportunities for public review of important analytical matters. Methodological principles rulemakings (also known as “carwashes”) evaluate proposals for analytical changes. The PRC also reviews petitions from stakeholders to re-evaluate postal methodologies or benchmarks. During the ACD proceeding, interested persons can propose needed evaluations or rulemakings, typically for the PRC to evaluate outside the 90-day ACD timeframe.

Public participation in PRC rate, annual compliance, and rulemaking proceedings has declined since the passage of the PAEA, perhaps because the price cap limits the extent

³⁵ See 39 U.S.C. § 3622(d)(2). The law is silent on the degree to which the Classes are immutable.

of near-term harms from methodological deficiencies, making the cost/benefit ratio of participation and perhaps also because in the current economic climate the resources available to potential participants have been more constrained.

5. POLICY ISSUES

Price cap regulation applied to the USPS has raised several broad policy issues.

a. Loss-Making Products

Loss-making products are those which do not cover their attributable costs (i.e., are “underwater”). Where an entire price cap grouping or basket is underwater, the general pre-eminence of the price cap can raise challenging questions. The PAEA requires the PRC to determine whether products are not in compliance with the law. If the PRC finds noncompliance, such as in the ACD or as the result of a complaint proceeding, it can take a range of remedial measures, include piercing the price cap. The PRC has not yet used its authority in this manner.

Even if the underwater product is only one product within a price cap grouping, it may be still difficult to correct quickly without causing market disruption. To date, the PRC has directed USPS to take concrete steps to improve cost coverage on underwater products, while also encouraging USPS pricing flexibility and the avoidance of rate shock.³⁶ In reviewing underwater products, the PRC has addressed both aspects of cost coverage: cost cutting (including quantifying the effect of efficiency measures) as well as pricing adjustments that move toward remediation.³⁷

³⁶ For certain products, such as periodicals, the PRC takes into consideration in noncompliance determinations the legal provision regarding the Educational, Cultural, Scientific and Informational (ECSI) value of a type of mail. *See* 39 § U.S.C. 3662(c)(11).

³⁷ *See, e.g.*, 2013 ACD, at 54.

b. Changes to Mail Preparation Requirements

To maintain efficiencies in postal mail induction, handling, processing, transportation and delivery, USPS has established numerous rules and requirements for mailers to be eligible for automation discounts. These include, among other things, aspects of mail piece design, weight consistency, addressing mandates, approved methods of checking of addresses, presorting, batching, packaging, paperwork and mail data file obligations, and the location and timing of mail presentation.

Some changes to mail preparation requirements can result in substantial costs or other burdens for postal customers, and thus, in theory, may have price cap implications. If mailers do not comply with mail preparation requirements, they could forgo valuable automation discounts or incur penalties, thus raising the mailers' costs. Mailers who abide by the requirements can use the discounts. Mailers who do not comply with existing or new requirements risk penalties or the loss of discounts and thus could incur sizable price increase. This situation might occur in the form of a USPS effort to save operational expense by imposing greater preparation costs on mailers, which could present a situation incompatible with the policy objectives of the price cap regime. This raises the question of whether the price cap can be refined to take into consideration cost shifting from revised mail preparation requirements.

In Docket No. R2013-10, these issues were brought into focus when USPS proposed requiring mailers to use the Full Service Intelligent Mail barcode (IMb) as a requirement for the automated discount rates. The PRC decided that implementing the new requirement, along with the proposed rate increase, would, in eliminating existing rate categories, violate the price cap. USPS appealed this decision and it is under consideration in the Courts.³⁸

³⁸ USPS v PRC, USCA Case No. 13-1308 (D.C. Circ.).

c. Quality of Service Adjustments

Service quality is a concern in a price cap regulated system, because the operator may be incented to reduce service performance to cut costs and stay within the price cap.³⁹

Quality of service effects on rate indexing are considered particularly important for regulated industries that are not experiencing rapid productivity gains.⁴⁰

Reductions in service quality could be regarded as skirting the protections of the price cap by charging the same price yet delivering lower quality service. Quality of service adjustments are not uncommon in regulated industries with price caps; and in other nations' postal systems. Often, the quality of service adjustments are structured as one-time performance bonuses or penalties, but they may also be in the form of ongoing adjustments to the cap.

The PAEA may have helped to prevent reductions in service quality by including: 1) the requirement for heightened service performance reporting, specifically for the Commission to review USPS quality of service for all market-dominant products, including speed of delivery, reliability and the level of customer satisfaction;⁴¹ 2) the requirement for a mail measurement system for all market dominant products; and 3) the requirement that USPS obtain regulatory approval for its substitution of an internal mail measurement system; and 3) USPS's alteration to certain service standards to better align

³⁹ "Under the PAEA, the PRC is tasked with reviewing USPS's quality of service for all market dominant products, including speed of delivery, reliability, and the level of customer satisfaction. The review is undertaken to ensure that quality of service does not deteriorate under the CPI price cap system because of the potential to cut costs by way of service reductions to comply with price cap requirements." 2010 ACD at 57. *See also* Crew and Kleindorfer (2004) ("In contrast to cost-of-service regulation," however, "a price-cap regulated firm has an incentive to reduce quality of service in an effort to reduce costs and increase profits.") Nevertheless, Sappington (2010) notes that no lasting declines in service quality were apparent in the telecom industry; one reason he offers is that regulated suppliers may face political and regulatory pressure to maintain high levels of service quality other than the pressure imposed directly by the regulatory plan itself. *Id.* at 28.

⁴⁰ Crew and Kleindorfer (2001).

⁴¹ 39 U.S.C. § 3652(a)(2); Section 701 Report at 58.

the standards with logistics constraints.⁴² The internal mail measurement system can aid in identifying areas of inefficient mail handling and use that greater visibility to help correct service problems.⁴³ In some instances, there have been challenges in securing sufficient usable data to achieve statistical reliability.⁴⁴ An important issue is the degree to which the measured sampling is representative of all mail.⁴⁵ But overall, the measured service performance has generally improved under the PAEA.⁴⁶

The PAEA is silent on incentives, penalties or adjustments to the cap based on quality of service measures.⁴⁷ Under current rules, there is no tie between service quality and bonuses, penalties or “headroom”.⁴⁸ There is no mechanism currently implemented to adjust the price cap. This raises the question of whether the price cap can accommodate material changes in service quality.

Mailers have proposed adding a quality of service adjustment, either to the price cap or in some other way to the regulatory system, to preserve the price/value relationship, and to help maintain service quality.⁴⁹ In 2011, the PRC recommended in its Section 701 Report that Congress consider providing an opportunity for USPS to achieve increased

⁴² An example would be adjustment of service standards to non-contiguous areas (such as Pacific Ocean territories) served by transportation methods with irregular scheduling.

⁴³ *See, e.g.*, 2012 ACD at 50.

⁴⁴ *See* Section 701 Report at 63.

⁴⁵ *See, e.g.*, Docket No. PI2008-1, Order No. 140, Order Concerning Proposals for Internal Service Standards Measurement Systems, November 25, 2008, *passim*.

⁴⁶ Testimony of Chairman Ruth Y. Goldway, before the U.S. Senate Committee on Homeland Security and Government Affairs, September 19, 2013. Published at: http://www.prc.gov/Docs/87/87878/Testimony-Goldway-2013-09-19_3344.pdf.

⁴⁷ There are incentives relating to quality of service for inbound international mail and for inbound parcels established by treaty through the UPU negotiation process.

⁴⁸ “Headroom” is a term for the amount of pricing flexibility the postal operator has within the price cap limitation for each class of mail.

⁴⁹ *See, e.g.*, Docket Nos. RM2007-1, RM2013-2; Docket No. RM2013-2, Order No. 1786, Order Adopting Final Rules for Determining and Applying the Maximum Amount of Rate Adjustments, July 23, 2013 at 26 (Order No. 1786).

pricing authority by increasing quality of service.⁵⁰ The PRC recommendation was for increased pricing authority, not decreases in authority or penalties.⁵¹

This concept would raise a number of implementation aspects, including: 1) the details of the mechanism for setting quality of service criteria; 2) accounting for unexpected external events, such as extraordinary, widespread weather conditions, infrastructure failures extrinsic to USPS, or other civil disruptions such as a terrorist attack; and 3) the degree to which costs shifted from USPS to mailers by mail preparation requirements would be considered a quality of service issue.

The PAEA specifies speed of delivery and reliability as the level of service parameters for each product, along with the degree of customer satisfaction with the service provided for that product.⁵² As a result, the primary U.S. focus has been on assessment of delivery time as the key measure of service performance. Miller (2011) describes a mechanism for linking service quality with the price cap, but the data requirements to implement such a mechanism are daunting at the present time.

The speed of delivery is quantitative in nature and more readily measurable compared to other service quality parameters. Nevertheless, the speed of delivery parameter itself is complex, potentially including issues such as: 1) national versus regional measurements; 2) the weighting placed on part-year results; 3) seasonal results; 4) results for individual mail products versus a broader product line; and 5) assessing products by shape.

⁵⁰ Section 701 Report at 2, 40. The PRC had earlier discussed the quality of service adjustment issue raised by several commenters in its Order Proposing Regulations to Establish a System of Ratemaking, August 15, 2007 (Order No. 26) at 33. (“The PRC is sympathetic to these concerns [cost shifting and service reduction], yet finds the better course is to defer such considerations.”)

⁵¹ *Id.*

⁵² *See* 39 U.S.C. § 3652(a)(2).

When measurements become narrow and sample sizes are less robust, the coefficients of variation (C_v) are larger and the results are statistically less reliable. As USPS tracks an increasing proportion of the mail,⁵³ the reliability of measurements increases.

Sappington (2010)⁵⁴ notes that the level of service quality that is actually delivered sometimes can be difficult to measure. When performance aspects are hard to monitor (such as interaction with service representatives), enforcing desired levels of service can be problematic.⁵⁵

6. TECHNICAL/CALCULATION ISSUES

Postal price cap regulation also raises a number of technical or calculation issues.

a. Moving Average Versus Point-to-Point Calculation

While specifying the use of CPI-U to calculate the price cap limitation, the PAEA did not specify the particular method of using it to calculate the price cap limitation. In rulemaking proceedings, the PRC considered differing approaches to specifying the price cap limitation including: a “point to point” method and a moving average (weighted average) method.⁵⁶

For annual price cap changes, the PRC adopted the moving average 12-month CPI-U, where the most recent 12-month CPI-U average (“recent average”) is divided by the previous 12-month CPI-U average (“base average”) to produce an annual percentage CPI-

⁵³ USPS indicates that the Intelligent Mail barcode (IMb) is intended to be a census of nearly all mail rather than a limited sampling.

⁵⁴ Sappington (2010) at 10.

⁵⁵ *Id.*

⁵⁶ The point-to-point method would take the difference in CPI between the month USPS would notice a price adjustment and the monthly period 12 months earlier. The running moving average method uses a “Recent Average” and the “Base Average”. The Recent Average is one twelfth of the sum of the most recent 12 monthly CPI values. The Base Average is one twelfth of the sum of the prior 12 monthly CPI values. The annual limitation is the Recent Average divided by the Base Average, minus 1. 39 CFR 3010.29 specifies the method.

U change (recent average/base average – 1) for the next price cap. Benefits included reducing the volatility of the price cap limitation figure from month to month, and thus helping provide both mailers and USPS with more stable and predictable rates.⁵⁷ The moving average had the effect of lessening the sensitivity of USPS’s selection of the timing of noticing a price adjustment, and thus has also provided USPS with more flexibility in determining the timing of noticing rate adjustments by reducing the significance of any particular CPI monthly change.⁵⁸

The moving average has in some cases preserved the opportunity to claim revenue when CPI was dropping quickly. On the other hand, the moving average method also has a downside in that the calculated number it lags the point to point average and, in times of rising CPI-U, postal rate increases lag CPI-U increases, causing increased financial pressure on the USPS.

b. Timing Flexibility for Price Adjustments

The law required USPS to establish a regular schedule of price adjustments, but provided flexibility to USPS to alter the timing of these adjustments if it provided adequate notice.⁵⁹ The schedules filed by USPS have specified rate adjustments 12 months apart. However, USPS has filed one case that was less than 12 months after the previous case, and another case filed more than 12 months after the previous case. These two situations require a rate cap adjustment to avoid double counting or shortchanging with regard to the annual limitation.⁶⁰ However, the adjustment complicates the calculations.

⁵⁷ Section 701 Report at 32-33.

⁵⁸ See, e.g., Order No. 15, Second Advance Notice of Proposed Rulemaking on Regulations Establishing a System of Rulemaking, May 17, 2007, at 3-5.

⁵⁹ See 39 U.S.C. § 3622(d)(1)(B), (d)(1)(C); 39 CFR 3010.7.

⁶⁰ Partial year adjustments use a limitation that is the Recent Average CPI-U divided by the Recent Average from the most recent previous cap increase, minus 1. A greater than 12 months limitation is calculated by determining the annual inflation-based limitation (the price cap) but adding the interim unused rate authority (the extra portion). The Interim Unused Rate Authority is computed by taking the Base Average for Current Notice divided by the Recent Average for the last notice, minus 1.

In a rulemaking concerning price adjustments greater than 12 months apart, the PRC determined that “unused rate adjustment authority is not an adjustment to the annual limitation. [Rather,] it is a separate and distinct reservoir of potential future rate increases that is available for use for up to five years.”⁶¹ The unused rate adjustment authority is available only after the annual limitation has been used.⁶² The PRC has clarified its rule that distinguished unused rate authority from rate authority derived from a more than 12 month period.⁶³

c. Unused Rate Authority

Implementation of rules regarding banking of unused rate authority have been complicated by the interplay of aspects such as the use of banked amounts on a FIFO basis, the expiration of banked amounts, the effects of deflationary periods, the reset of the cap calculations upon adjustment to unused rate authority, and calculation of unused rate authority in conjunction with pricing incentives. In some cases, these interactions can result in unforeseen or counterintuitive consequences.

Calculating unused rate authority for rate adjustments of less than or greater than 12 month intervals applied rules⁶⁴ that prior months’ unused rate authority could be applied on a FIFO basis at USPS’s discretion. In a rulemaking order, the PRC said that if USPS can delay imposing price increases on the public, USPS should not be penalized for such a delay. The PRC said that the clear intent of the statutory provision allowing for recapture of unused rate authority is to encourage USPS to whenever possible refrain from imposing the maximum permissible rate increases.⁶⁵

⁶¹ Order No. 606 at 6.

⁶² Order No. 606 at 6.

⁶³ Order No. 1786, at 12-14.

⁶⁴ 39 CFR 3010.26(c)(2).

⁶⁵ See Order No. 26 at 30-31. See also Order No. 606 at 8.

The PRC has also addressed a situation in which the interim unused rate authority was negative. Negative unused rate authority was to be included into the banked amounts until it either was incorporated into the rate calculations or had expired after five years.⁶⁶ The PRC has restated and further clarified these rules.⁶⁷

d. Deflationary Periods

The PAEA and the modern system of regulation adopted by the PRC were silent on how the price cap addressed deflationary periods, in which the CPI-U declines. Economic deflation has triggered some pricing predictability implications for USPS and its customers. Downward averaging was incorporated into the unused rate authority, and the downward averaging can exert an influence on the calculations for a period of time. USPS asked to be able to ignore periods of deflation in the calculation of interim unused rate adjustment authority, given the moving average method of calculating CPI combined with a First In First Out (FIFO) system for tapping unused rate authority, and the method of calculating interim rate adjustment authority for adjustments more than 12 months apart. The Commission ruled that the Postal Service must take into accounts deflationary periods in assessing unused rate authority.⁶⁸

Some mailers have questioned whether negative CPI would require USPS to lower rates. While mailers might prefer to see negative price adjustments during a deflationary period, such downward adjustments are not required in the law, and USPS is not required to pursue any such downward price adjustments as a result of a period of deflation.

⁶⁶ Order No. 606.

⁶⁷ Order No. 1786.

⁶⁸ Order No. 1786, at 13 (“Just as the Postal Service benefits from positive interim unused rate adjustment authority in periods of inflation, it must accept that in periods of deflation, interim unused rate adjustment authority will be negative.”)

e. **Selection of a Price Index**⁶⁹

The PAEA specified that the CPI price adjustment restriction be applied at the class level. Thus, rules were needed to provide a means of calculating the aggregate percentage change in rates for each class (product grouping). To do this, weighting (in the form of billing determinants) must be applied to the set of rates that comprise a Class. There are several ways to accomplish this.

The PRC selected a backward-weighted (Laspeyres) Index to use as the price index for purposes of pre-implementation review of proposed price adjustments, rather than alternative approaches, such as a forward-weighted volume index (Paasche Index). The backward-weighted index calculates the percentage change in prices for each class by using the most recently available historical billing determinants to weight the percentage change of each price cell. The price cap rules further instruct USPS to make reasonable adjustments to the billing determinants to account for classification changes such as the addition, elimination, or redefinition of price categories.⁷⁰ Some of these are discussed as separate issues below.

The billing determinants can be thought of as a market basket of purchased postal services. If mailers buy the exact same services in the full year that the new prices are in effect, then the new prices would produce the projected increases consistent with the price cap. However, factors including the price changes may affect the quantity and mix of purchased services, and so the market basket changes as a result of the new prices and other factors. A forward-weighted analysis would use billing determinants that represent the market basket of purchased services at the new prices.

A backward-weighted index requires only new price data for the new period, not new quantity data. The results are not dependent upon forecasted changes. However, a backward weighted index may provide USPS slightly more rate authority and financial

⁶⁹ This section is derived in part from a description in the 2012 ACD, Appendix A, pages 179-181.

⁷⁰ See 39 CFR 3010.23.

flexibility because it omits changes in consumption due to price elasticity (and cross-price elasticities), all else being held the same. According to Crowder and Miller (2008), such an arrangement encourages an accountable operator to efficiently restructure rates to gain the most revenue and, at the same time, satisfy the most mailers in the market.⁷¹

While a forward-weighted index may in principle achieve more accurate results, it requires more data and is more complex to calculate. If price changes occur in the midst of a reporting period for mail volumes, it can make assigning the volumes to a particular price level uncertain. Allowing a reasonable opportunity for interested persons and the regulator to evaluate the details of a forward-weighted approach within the short timeframe permitted for pre-implementation review present practical challenges.

f. Incentives and Promotional Rates

USPS has proposed and implemented a variety of incentives, promotions, rebates, seasonal sales and rate decreases that have price cap implications. In its first incentives, USPS did not seek additional future pricing authority that resulted for price decreases (i.e., sales and rebates); and the PRC treated mail volumes the same way as it did for Negotiated Service Agreements (NSAs) for price cap purpose (i.e., volumes were assumed to pay undiscounted prices).⁷² In other temporary incentive programs reviewed by the PRC,⁷³ the Commission determined that the price cap did not apply, citing the short duration of the program and uncertainty over the amount of new volume that would

⁷¹ See Crowder and Miller (2008).

⁷² Negotiated Service Agreements are contracted rates for particular mailers. Commission rules addressing the price cap implications of NSA's count the NSA mail volume toward price cap calculations but assume the ordinary tariff rate for calculating the annual rate limitations. See 39 CFR 3010.24.

⁷³ These include the Summer Sale (R2009-3), the Fall Sale (R2009-5), the second Summer Sale (R2010-3), and the 2-D Barcode incentive (Docket No. R2011-4), among others. The Postal Service had not requested price cap credit for these incentive-related rate reductions.

be generated.⁷⁴ In Docket R2011-1, the PRC again concluded that expected new volume from promotion programs should not be considered in the price cap calculation.⁷⁵

USPS first included the revenues foregone due to promotional pricing in price cap calculations in its general rate case Docket No. R2013-1. The PRC determined that incorporating the revenue foregone from promotional discounts is permissible as long as USPS uses historical data and does not rely on forecasts of mail volumes, and that the volumes are properly allocated to the appropriate products.⁷⁶

As USPS increased the number of proposals for incentive programs, the PRC in November 2013 proposed rules to standardize the treatment of rate incentives for rates of general applicability (available to all customers) and for rates not of general applicability (limited to particular customers).⁷⁷

g. Rebates

Rebates are not yet a live issue in the US, but they merit mention as a type of incentive that could potentially trigger price cap issues.⁷⁸ Wojtek (2012) provides a list of types of rebates used in competitive markets, including quantity rebates, turnover-related rebates, total turnover-related rebates, fidelity rebates, price reduction based on reduced product or service, and zonal pricing. These mechanisms could have important implications

⁷⁴ See, e.g., Docket No. R2009-5, Order 299, Order Approving First-Class Mail Incentive Pricing Program at 9, September 16, 2009; Docket No. R2009-3, Order No. 219, Order Approving Standard Mail Volume Incentive Pricing Program, June 4, 2009 at 10.

⁷⁵ Docket No. R2011-1 (Order No. 606), Order Approving Market Dominant Classification and Price Changes, and Applying Price Cap Rules, December 10, 2010, at 19.

⁷⁶ See Docket No. R2013-1, Order No. 1541, Order on Price Adjustments for Market Dominant Products and Related Mail Classification Changes, November 15, 2012, at 14-18.

⁷⁷ Docket No. RM2014-3, Order No. 1879, Notice of Proposed Rulemaking on the Treatment of Rate Incentives and De Minimis Rate Increases for Price Cap Purposes, November 18, 2013 (Order No. 1879).

⁷⁸ Rebates also may trigger tying or other antitrust concerns. Tying is the practice of selling one product or service as a mandatory addition to the purchase of a different product or service. Some kinds of tying have historically been regarded as an anti-competitive practice. In the postal context, tying could be considered problematic if it, for example, required purchasers of market dominant products to purchase competitive products or vice versa.

regarding the price cap. For example, rebates may shift revenue or impose burdens across reporting periods.

h. Rate Decreases

Rate decreases also raise questions for price cap compliance, including whether annual limitation and unused rate adjustment authority apply to rate decreases, or only to rate increases. In a docket involving price decreases on Standard Mail High Density Flats (R2009-4), USPS did not claim new unused rate adjustment authority because applying the price cap rules would reset the cap calculation and in this instance would require USPS to include deflationary impact from the prior year, and thus would trigger negative CPI burden.⁷⁹ In its order, the PRC accepted exclusion of the price decreases from the price cap calculation in this instance, but signaled that a more “holistic” look at the rules was needed.⁸⁰ The PRC has recently proposed rules to address the price cap implications of rate decreases.⁸¹

i. New Mail Classes or Class Changes

Application of the price cap limitation to newly established Classes of mail, or to newly restructured Classes of mail remains ill-defined. *See* 39 U.S.C. § 3622 (d)(2)(A). “[T]he annual limitations... shall apply to a class of mail, as defined in the Domestic Mail Classification Schedule as in effect on the date of enactment of the [PAEA]. *Id.*

⁷⁹ Docket No. R2009-4, Order 236, Order Approving Price Adjustments for Standard Mail High Density Flats, July 1, 2009, at 5-7 (Order 236). The Postal Service had argued that the law did not necessitate a price cap analysis when a price decrease occurs, the Commission should not adjust the USPS pricing authority because in these unique factual circumstances, the partial-year annual limitation applicable to the adjustment was negative, and even price decreases would require USPS to utilize a large portion of its unused price adjustment authority. *Id.* at 5-6.

⁸⁰ Order No. 236.

⁸¹ Order No. 1879.

The law is silent on whether USPS can establish new Classes of market-dominant mail, or migrate products to new Classes of market-dominant mail.⁸² The PRC has recommended statutory language that would explicitly allow USPS to add new market-dominant Classes of mail.⁸³ Should new products be established, it remains to be determined how the annual rate limitation will be applied to the Class in which the new products are placed.

Several commentators, including Campbell (2007) and Pitney Bowes, have suggested that exemption of new products (i.e., new market-dominant products) from the price cap, at least initially, encourages innovation.⁸⁴

7. THE TEN YEAR REVIEW

The PAEA mandates a review ten years after PAEA's enactment.

Littlechild (1983) addressed the matter of plan review in the seminal document describing his conception of a price cap system. *“In any event, an automatic reference to the MMC [Monopolies and Mergers Commission] after, say, five years seems appropriate. By that time the extent and strength of competition should be apparent, and it may be appropriate to extend or restrict the scope of the ‘monopoly basket’; to change the value of X or to rebase the calculation; or to abolish the tariff reduction scheme altogether or to impose additional constraints.”*⁸⁵

Sappington notes that in price cap regulation, the incentives for productivity vary with the nature of the plan review.⁸⁶ If the review primarily involves review of the X-factor, then

⁸² Cf. Section 701 Report at 41.

⁸³ Section 701 Report at 2, 41-44.

⁸⁴ Docket No. RM2007-1, Initial Comments of Pitney Bowes, April 6, 2007; Campbell (2007) at 56-57. See also Crew and Kleindorfer (1994) (discussing exclusion of new products from the price cap regime as a means to stimulate innovation and the development of new services).

⁸⁵ Littlechild (1983) at ¶13.14.

⁸⁶ Sappington (2010) at 19.

price cap regulation will function much like rate of return regulation with an exogenous regulatory lag. But if the review serves primarily to determine whether the industry has experienced any major structural changes, and to adjust plan parameters only to reflect such changes, then the price cap regulation plan will provide the regulated firm with substantial incentive to innovate and reduce its operating costs.⁸⁷

In the United States, the PAEA requires the PRC to review the system for regulating rates and classes for market-dominant products ten years after enactment of the law.⁸⁸ The PRC is required to determine if the system is achieving the Objectives of the Act, taking into account the Factors in the Act. If the PRC determines after opportunity for public comment that the system is not achieving the objectives, the PRC may by regulation make modifications or adopt an alternative system for regulating rates and classes for market-dominant products as required to achieve the objectives.⁸⁹

PAEA's ten year review is obliged to examine the adequacy of the regulatory system with respect to the Objectives and Factors of the Act. This review will also provide an opportunity to examine a number of possible areas relating to the adequacy and improvement of the current regulatory structure.⁹⁰ The ten year review could consider a form of revenue requirement regulation or rate of return regulation. It could include consideration of the merits of the price cap itself, and the concept of a fixed or indefinite length price cap regime. It could reconsider the current structure of Classes as the price capped groups. It might evaluate alternative inflation benchmarks such as Revenue per Delivery Point (RPD) or a hybrid of CPIA and RPD, or a price cap index that relates to

⁸⁷ Sappington (2010) at 19.

⁸⁸ 39 U.S.C. § 3622(d)(3). Ten years after enactment of the PAEA will be December 2016.

⁸⁹ *Id.*

⁹⁰ "The additional liquidity that the Postal Service so desperately needs cannot be endlessly extracted from mailers under the auspices of a narrow exception to the price cap. Rather, the postal model needs refinement that is beyond the scope of the price cap system (much less the narrow safety valve of the exigent provision). (...) The Postal Service proposes a perpetual recovery arrangement that may be revisited as part of the Commission's mandated 2017 review of the system of ratemaking." Docket No. R2013-11, Separate Views of Commissioner Acton, at 3-4 (Exigency Rate Case Order).

the Employment Cost Index.⁹¹ It could consider an X (productivity) factor and/or a Z (external adjustment) factor. It could evaluate the role of public service costs borne by USPS. It could impose mail volume thresholds or mail mix criteria for triggering or permitting adjustment actions.⁹² It could reconsider the structure and span of the price cap baskets, and whether particular price cap protection may be appropriate for products primarily used by households or other captive customers.

The ten year review could also reexamine the disposition and use of unused rate authority, and consideration of how new products are treated under the price cap as a potential way of spurring innovation. It may consider annual rate limitation adjustment mechanisms for Quality of Service and/or the addition of significant new mail preparation burdens. Finally, it could examine the interplay of the USO, the letter monopoly and the mailbox monopoly with regard to the price cap.

8. CONCLUSIONS

Price cap regulation under the PAEA is generally regarded as having provided increased predictability of rates, incited cost reduction and productivity improvements, and has substantially reduced transactional costs such as the cost of litigating and administering rate proceedings.

Experience shows that while the price cap system is conceptually simple in theory, in practice the interplay of price cap features (such as unused rate adjustment authority, the reset of the cap calculation upon adjustment of the unused rate authority, promotions/incentives/NSAs, deflationary periods, first-in first-out usage of unused rate authority, partial year proceedings, and changes in mail classification) can create ambiguity and uncertainty, and has required the development of clarifying rules.

⁹¹ See USPS Office of Inspector General, *Revisiting the CPI-Only Price Cap Formula*, RARC-WP-13-007, April 12, 2013, *passim*; *United States Postal Service Response to the Draft Section 701 Report*, at 20 & n.22. See also, generally, Reisner (2003).

⁹² See Waller (2012).

A price cap system is intended to incent efficient cost cutting but could lead to downward pressure on service quality and shifting costs onto mailers. The PAEA contains certain aspects that help preserve service quality, such as enhanced transparency of service performance. Quality of Service adjustments of one type or another may be a helpful mechanism to motivate service quality and thus deter service degradation. Separately, a regulator should remain aware of and may wish to counteract any un-intended cost shifting.

Establishing a price cap regulatory system without first properly restructuring rates to recover all costs, to align rates with costs to provide economically efficient price signals, and match current market demands can be problematic.⁹³ Challenges may include structural gaps due to financial obligations not accounted for in the baseline revenue, inefficiencies caused by poor price signals, and products that don't cover their costs. Moving to a price cap environment from a different type of regulatory system requires a good understanding of the obligations and market conditions of the environment. Any renegotiated price cap regime should include an evaluation of revenue requirements and external factors that may impact the initial ability to produce a net surplus (or at minimum to break even), service debt, and to satisfy the Universal Service Obligation.

Predicates for postal price cap implementation, review or reimplementaion may include:

- Accounting for all major obligatory structural costs in the revenue system;
- Postal operator access to capital and lines of credit;
- Ensuring that categories of mail cover their costs to prevent cross subsidization that may be challenging to remediate in a price cap environment, except where legal circumstances provide differently;
- Re-examination of the minimum contribution requirement for competitive products;

⁹³ See Sappington (2010) at 3 and n.5 (“Rate rebalancing helps to ensure the PCR promotes industry cost reduction. (...) Even when competition is limited, however, rate rebalancing can lead to allocative efficiency gains in the short-run by reducing price-cost margins and in the long-run by increasing the likelihood that rate changes mandated under PCR move prices in the direction of underlying costs.”)

- Clarifying the structure of classes with regard to products, markets and service standards;
- Providing an opportunity for rates to be aligned with costs;
- Assessing the quality of the network, to be able to address and account for infrastructure or other systemic challenges at the outset; and
- The need in any postal regulatory system to take into consideration the rapid market and demand changes due to electronic substitution, and tremendous social changes involving the use of telecommunications and printed communications.

Operating within the price cap, USPS has improved its productivity and efficiency and has substantially reduced work hours. Simultaneously, the PAEA has obligated the USPS to better measure and document service performance, and in turn the regulator has ordered service quality measurement and publication for certain aspects of products. This improved service performance measurement and reporting has countered the tendency toward downward pressure on service quality in a price cap environment.

Unfortunately, the USPS has been severely challenged by factors such as mail volume reductions,⁹⁴ volatility in the economy, and USPS's statutory financial obligations, within the societal context of growth in electronic communications. As a result, USPS has reached its statutory debt limit, limiting its ability to fund productivity improvements and technological innovation.

The PAEA provides USPS the ability, given certain circumstances, to seek an exigency rate increase that pierces the price cap. In 2014, the Postal Service received approval for a temporary rate surcharge cap as the result of an exigency request,⁹⁵ but this decision has been challenged in the Courts by both USPS and mailer organizations.⁹⁶ The most serious postal financial issues do not directly result from price cap regulation, but instead

⁹⁴ USPS describes the mail volume declines as "precipitous", "unprecedented" and "staggering." USPS Response to Commission's Draft Section 701 Report at 6-7.

⁹⁵ Docket No. R2013-11, Order 1926, Order Granting Exigent Price Increase, December 24, 2013 (Order 1926);

⁹⁶ USPS v PRC, USCA Case No. 14-1010, D.C. Cir., filed on Jan. 23, 2014.

likely require substantive legislative policy decisions on the structure and operation of the USPS.

The ten year regulatory review of the price cap regime mandated by PAEA will be one of the inputs into both the improvement in the price cap structure and the broader need for postal policy decisions.

REFERENCES

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

Bouin, B., Curien, N. Curien and Lacroix, G. (2010), Price Cap Postal Regulation: the French Experience, in M.A. Crew and P.R. Kleindorfer (eds), *Heightening Competition in the Postal and Delivery Sector*, Cheltenham, UK and Northampton, MA: Edward Elgar, pp. 85-98.

Campbell, J. (2007), *An Analysis of Provisions of the Postal Accountability and Enhancement Act Relating to the Regulation of Postal Rates and Services*, August 3.

Correia da Silva, L., Dudley, P., Mautino, L. and Richard, S. (2004), “RPI-X Price Control Regulation in the Postal Sector.” In *Competitive Transformation of the Postal and Delivery Sector*, edited by M.A. Crew and P.R. Kleindorfer. Boston, MA: Kluwer Academic Publishers.

Crew, M.A. and Kleindorfer, P.R. (1992), *The Economics of Postal Service: A Research Study Supported by WIK*. Kluwer Academic Publishers.

Crew, M.A. and Kleindorfer, P.R. (1994), “Pricing, Entry, Service Quality, and Innovation under a Commercialized Postal Service,” in J.G. Sidak, ed., *Governing USPS* 164-165.

Crew, M.A. and Kleindorfer, P.R. (1996), Incentive Regulation in the United Kingdom and the United States: Some Lessons. *Journal of Regulatory Economics*, 9:211-225.

Crew, M.A. and Kleindorfer, P.R. (2000), *Privatizing the Postal Service*, published in E.L. Hudgins, (Ed.), *Mail @ the Millennium: Will the Postal Service Go Private*, (Ed.), CATO Institute, Washington, DC.

Crew, M.A. and Kleindorfer, P.R. (2001), "A Critique of the Theory of Incentive Regulation: Implications for the Design of Performance Based Regulation for Postal Service," in Crew and Kleindorfer, eds., *Future Directions in Postal Reform*.

Crew, M.A. and Kleindorfer, P.R. (2009), *Service Quality, Price Caps and the USO Under Entry*, in Michael A. Crew and P.R. Kleindorfer, (eds), *Progress in the Competitive Agenda in the Postal and Delivery Sector*, Cheltenham and Northampton, MA: Edward Elgar, pp. 1-22.

Crowder, A. and Miller, W. (2008), *A Dynamic Analysis of USPS Price Capped Standard Mail Rates Under Provisions of the Postal Accountability and Enhancement Act*, presented at the Center for Research in Regulated Industries 27th Eastern Conference, Skytop, Pennsylvania.

Laffont, J-J. and Tirole, J. (1993), *A Theory of Incentives in Procurement and Regulation*, Cambridge, Mass.: Massachusetts Institute of Technology.

Littlechild, S. C. (1983), *Regulation of British Telecommunications' Profitability: Report to the Secretary of State, Department of Industry*.

Miller, William C. (2011), *Linking Service Quality with Price Caps: The Postal Service Case Presented at the CRRI 30th Annual Eastern Conference*, Skytop, Pennsylvania.

Postal Regulatory Commission, (2011) *Section 701 Report, Analysis of the Postal Accountability and Enhancement Act of 2006*, September 22.

Reisner, R.A.F. (2003), Global Insight, "Price Caps and the US Postal Service: Prospects, Perils and the Public Interest," Project for President's Commission on the United States Postal Service. Available at http://govinfo.library.unt.edu/usps/offices/domestic-finance/usps/docs/may_26_paper3.pdf

Reisner, R.A.F., Buc, L. G. and Myers, J. P. (2008), "The Postal Accountability and Enhancement Act: Some Consequences" in *Competition and Regulation in the Postal and Delivery Sector*, edited by Michael A. Crew and Kleindorfer, Paul R., Edward Elgar.

Sappington, D.E.M. (2005), *Regulation Service Quality: a Survey*, *J. Regul. Econ.* 27(2):123-54.

Sappington, D.E.M. and Weisman, D.L. (2010), *Price Cap Regulation: What Have We Learned from 25 Years of Experience in the Telecommunications Industry*. *J. Regul. Econ.* 38:227-257.

Speckbacher, W.A.K. (1995), "Price Caps for Postal Service". In *Commercialization of Postal and Delivery Services: National and International Perspectives*, edited by M.A. Crew and P.R. Kleindorfer, Boston, MA: Kluwer Academic Publishers.

Treworgy, D.E., Sharkey, T.M., Fronk, D.R. and Kehoe, M.J., (1999). "Price-Cap Regulation in the Postal Sector: An International Comparison and Assessment." In

Emerging Competition in Postal and Delivery Services, edited by M.A. Crew and P.R. Kleindorfer, Boston, MA: Kluwer Academic Publishers, pp. 335 *et seq.*

United States Postal Service (2010), Ensuring a Viable Postal Service for America: An Action Plan for the Future, March. Available at: <http://about.usps.com/future-postal-service/actionplanforthefuture-march2010.pdf>

United States Postal Service (2011), United States Postal Service Response to Commission's Draft Section 701 Report, September 15.

Waller, J. (2012), USPS Office of Inspector General Blog Column, March 29, Available at: <http://www.uspsoig.gov/blog/oig-blog-tags/consumer-price-index>

Wojtek, R. and Zauner, M. (2012), Postal Price Regulation in a Competitive Environment. In Multi-Model Competition and the Future of Mail, Michael A. Crew and Paul R. Kleindorfer, eds. Edward Elgar Publishing.