How the U.S. Postal Service Uses Its Monopoly Revenues and Special Privileges to Subsidize Its Competitive Operations

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How the U.S. Postal Service Uses Its Monopoly Revenues and Special Privileges to Cross Subsidize Its Competitive Operations[1]

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I. Introduction

For two generations, the United States and most other advanced nations have adopted new approaches to many traditional governmental functions and areas, including greater private competition. Governments have cut back their direct support for postal systems and public utilities, deregulated telecommunications, and ended rate regulation in most transportation areas. These reforms have expanded consumer choices, increased competition, and reduced prices. In certain cases, however, a former public monopoly continues to wield government-based advantages in ways that undermine competition with private companies. Economists call this phenomenon "cross-subsidization." Cross subsidies can present a serious economic problem when one organization offers both monopoly-based products and other products that compete with private companies, and then uses its monopoly proceeds to subsidize its private-sector products. In the United States, the most prominent example is the United States Postal Service (USPS).

This study assess the extent to which the USPS employs cross-subsidies. The government-sanctioned monopoly side of USPS operations confers large benefits, including exclusive rights to deliver letter mail and to leave letters and packages in residential mailboxes and the central mailrooms of apartment houses and office buildings. USPS also competes directly with private firms such as Fedex, UPS and DHL, mainly in package and expedited mail delivery. Since USPS's monopoly and competitive operations use much of the same facilities, equipment and labor, USPS has been able to leverage its monopoly privileges to support its private sector business.

In a previous study, we assessed the direct subsidies that the USPS currently receives as part of its monopoly responsibility to provide universal delivery of letter mail, periodicals and mass mailings.[2] The largest direct subsidy is based on its exclusive right to leave its deliveries in residential and business mailboxes rather than at each customer's door, as private delivery companies must do. In practice, this privilege applies not only to regular mail, but also to package and express mail deliveries where USPS competes with private firms. All told, this privilege saved the USPS an estimated $14.9 billion in FY 2013.

The USPS is also legally exempt from state and local property and real estate taxes, including property and real estate used by USPS in both its monopoly and competitive lines of business. This exemption saved the USPS more than $1.5 billion in FY 2014. The USPS also is exempt from state and local vehicle registration fees, road tolls, sales tax on fuels and parking tickets, again covering both its monopoly and competitive operations. Similarly, USPS has borrowed $15 billion directly from the U.S. Treasury at highly subsidized interest rates, funds which it may use for competitive as well as monopoly operations. This subsidy was worth $415 million to $490 million in FY 2014. Finally, while USPS pays federal income tax on net earnings

[1] The author gratefully acknowledges the excellent research assistance provided by Doug Dowson, and the support for our research provided by UPS. The views and analyses are solely those of the author.
[2] Shapiro (2015).

from its competitive operations, those tax payments are deposited in a special revolving funds at the Treasury, which USPS can use to cover any expense.

These subsidies support the USPS's public obligation to deliver letter mail to nearly 153 million businesses and residences, six days per-week. By leveraging its vast monopoly network of postal facilities, workers and equipment to artificially reduce its costs, the USPS uses these subsidies to support its competitive operations. In so doing, the USPS is mainly responding to economic incentives much like a private firm, which tends to raise the prices on products whose customers are less price-sensitive and maintain the prices on products whose customers are more price-sensitive. Data show that a one percent increase in the price of USPS's competitive products leads to a reduction in demand for those products 6.7 times greater than a comparable increase in the price of its monopoly products.[3] As USPS's costs have risen, this disparity has led it to increase the price of its monopoly products and use the additional revenues to cross-subsidize its competitive products, so the prices of its competitive products remain artificially low. For example, for every $1 spent exclusively on its monopoly operations, the USPS generates between $1.69 and $2.21 in revenues, versus $1.39 for every $1 spent on its competitive operations.

This problem of cross-subsidization is widely recognized. In response, however, Congress did not adopt the strategy used successfully by other countries and recommended by the President's Commission on the Postal Service, namely separating USPS's public and private operations in distinct organizations that would not share facilities, equipment or workers. Instead, Congress, the USPS and the Postal Regulatory Commission (PRC) adopted a strategy of capping increases in the prices of monopoly products at the rate of inflation and requiring that USPS's competitive products cover costs that can be attributed exclusively to those products as well as its share of the Postal System's fixed or institutional costs used in all operations.

This strategy has failed to prevent large-scale cross-subsidies. The PRC has allowed USPS to raise prices beyond the rate of inflation, most recently in December 2013. In addition, the share of all USPS costs which USPS attributes exclusively to its monopoly or competitive operations has fallen from 59.9 percent in FY 2007 to 49.9 percent in FY 2012 and 53.4 percent in FY 2014, despite the finding by the President's Commission that USPS should be able to attribute a minimum of 60 percent of its costs, and up to 100 percent of those costs, to its monopoly or competitive operations. The result is that an unreasonably large share of USPS costs are now allocated to the fixed or institutional costs of all USPS operations.

The management of those institutional cost allocations by the USPS and the PRC provides the foundation for the USPS's continuing, large-scale cross-subsidies. In 2007, the PRC held that the Postal System's competitive operations should be charged 5.5 percent of the fixed or institutional costs of all USPS operations. From 2007 to 2014, USPS's competitive products have grown very rapidly as a share of all USPS operations – from 10.6 percent to 23.6 percent of all USPS revenues and from 13.4 percent to 28.0 percent of all USPS attributable costs. Yet, the minimum required contribution of USPS's competitive operations to the System's annual fixed costs is unchanged at 5.5 percent. Using their FY 2014 revenue shares and attributable-costs shares as market-based benchmarks for the portion of the USPS's fixed costs that should be allocated to competitive operations, we estimate that the FY 2014 charge of $1.8 billion for the use of USPS

[3] Thress (2005).

fixed investments understates the value that the USPS's competitive operations derive from the system's institutional investments by at least $2.6 billion to $5.3 billion per year. An alternative approach to estimate these subsidies suggests that they total, at a minimum, $4.9 billion per-year. Moreover, since USPS understates the attributable costs and net revenues from its competitive operations, these estimates represent a conservative lower bound of USPS cross-subsidies.

These results suggest very large subsidy rates – that is, the extent to which USPS cross subsidies artificially reduce the prices of specific USPS competitive products and services. Using the revenue share of those competitive products as a benchmark for their share of USPS annual institutional costs, we estimate that cross subsidies have led to subsidy rates of 10.8 percent for international mail, 27.2 percent for priority mail, 29.3 percent for ground shipping, and 30.1 percent for first class packages. Two small product areas – priority mail express and other domestic services – received little or no subsidy. Using attributable-cost shares as a benchmark for the institutional costs of USPS's competitive operations, we estimate that the current 5.5 percent share of those costs has produced subsidy rates of 11.8 percent for international mail, 42.4 percent for priority mail, 46.5 percent for ground shipping, and 47.9 percent for first class packages.

These estimates do not account for all of the savings and advantages that the USPS's competitive operations derive from its monopoly operations; and therefore they provide a lower bound of USPS's cross-subsidies. The full extent of these cross subsidies is very difficult to measure without access to USPS's books and operations. In principle, one could precisely allocate all costs – labor costs, operating expenditures, investments in equipment and facilities, and so on – to each task and each line of business.[4] Alternatively, one could calculate the hypothetical, "stand alone" costs of producing each output of the USPS's competitive operations, in isolation from its monopoly operations, and compare the results to the reported costs. As a practical matter, such extensive allocations and cost calculations require large volumes of detailed proprietary information held by the USPS, and the USPS has consistently refused to make such data public.[5]

Ultimately, these USPS cross subsidies harm the efficiency and innovative capacities of the current marketplace for these competitive products. In these areas, the USPS competes directly with private companies such as FedEx, UPS, DHL and others; and without its subsidies, it probably could not compete at all: Bureau of Labor Statistics data show that for 25 years, the annual productivity gains of the Postal Service have consistently and dramatically lagged behind its private-sector counterparts.[6] USPS's high subsidy rates for its four leading competitive products exert downward pressures on the prices for those products, which in turn dampens investment in these areas by private delivery firms, including R&D investments. The subsidized prices also discourage entry by new competitors who would have to make do without subsidies. Over time, therefore, USPS's cross subsidies reduce the resources for and competitive pressures on private delivery companies to undertake investments to upgrade their efficiency and come up with new products and processes. The losers are the consumers who pay too much for USPS's monopoly

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[4] Heald (1996)

[5] Heald (1996). There is also an extensive literature on "optimal pricing" for public or regulated utilities. These constructions also are difficult to define and measure. For example, should the analyst focus on marginal cost pricing in the short-run or the long-term; should the model allow the entity to run deficits; and in what way should it adjust the shadow price of labor and other inputs across the business cycle? See, Rees (1984), and Heald (1996) for a review.

[6] Shapiro (2015).

products and have to deal with less efficient and innovative markets for private deliveries of packages and express mail, and state and federal governments that must forgo significant revenues.

II. The Basic Elements of USPS Cross-Subsidization

Cross subsidization of the type practiced by the USPS can occur only if the USPS enjoys certain advantages over private companies. The Postal Service's advantages are ultimately based on its monopoly over letter-mail delivery, which vitally supports the USPS's vast delivery infrastructure, including some 35,600 retail offices, 211,300 vehicles, 244,365 routes, and 154 million delivery points. This network infrastructure enables the USPS to draw on the sizable economies of scale and scope created largely by its institutional investments, in order to reduce the delivery costs for its competitive products, which depend on the same offices, vehicles, routes and delivery points as letter mail. While private companies such as FedEx and UPS must cover all of their delivery costs from the revenues from their package and shipping services and products, USPS can finance some of its package-delivery costs when it competes directly with Fedex, UPS and others through revenues from its letter mail monopoly.

As already noted, the USPS also enjoys certain other benefits and privileges that confer cost advantages in its competition with private companies, including exclusive access to customers' mailboxes and exemptions from state and local taxes and other fees. These subsidies further reduce the costs incurred by the USPS to deliver its competitive products, which in turn allows USPS to charge lower prices and thus capture a larger market share in those products than it would without its special status.

The USPS also has strong internal incentives to structure its pricing in ways that complement or enhance its cost advantages. Market pricing generally follows what economists call the "inverse elasticity pricing rule," which holds that a product's markup over its marginal cost is inversely proportional to its price elasticity of demand. Stated simply, the prices which a business charges its customers are based on both the costs of production and the extent to which customers' demand for the good changes in response to price. As a result, the USPS has a strong incentive to overcharge its "captive" or monopoly customers in letter mail and mass mailings, because they have no alternatives to the USPS, and to undercharge the more price-sensitive customers of its competitive products.

This inverse elasticity or "Ramsey" pricing strategy is clearly confirmed by market responses to USPS pricing. Analysts have found that demand for the USPS's monopoly products is relatively price-insensitive or inelastic, as expected. A one-percent increase in the price of first class mail, for example, reduces demand for first class mail by only 0.18 percent to 0.26 percent, and a one-percent increase in the price of standard mail products produces only a 0.30 percent decline in the demand for those products.[7] By contrast, demand for USPS's competitive products is highly price-sensitive or elastic: A one-percent increase in the price of USPS Priority Mail has been shown to produce a decline in demand of more than one-percent (1.02 percent); and a one-percent increase in the price of USPS's Express Mail products produces a 1.65 percent decline in demand.[8] (Table 1, below) As a result, an increase in the price of USPS competitive products

[7] Thress (2006).
[8] *Ibid.*

leads to a reduction in demand for those product 6.1 times greater than the reduction in demand for its monopoly products following a comparable price increase.

Table 1. Estimated Demand Elasticity for Selected USPS Products[9]

Product	Estimated Elasticity
First-Class Single Piece Letters	-0.184
First-Class Single Piece Cards	-0.258
Standard Mail	- 0.296
Priority Mail	-1.023
Express Mail	-1.645

The price elasticity of demand for USPS's various products appears to strongly influence USPS pricing. According to the PRC for FY 2014, USPS generated $2.21 in revenues for every $1.00 it spent on first class mail services and $1.66 for every $1.00 it spent on standard mail services. (Table 2, below) These large markups are consistent with USPS's monopoly over these services and customers' inelastic demand for them. By contrast, USPS generated $1.39 for every $1.00 it spent exclusively on its competitive services in FY 2014, reflecting market competition in those services and customers' greater price sensitivity with regard to its competitive products.

Table 2: USPS Revenues, Attributable Costs, and Cost Coverage for Monopoly and Competitive Products, FY 2014 ($ billion)[10]

	Revenues	Attributable Costs	Cost Coverage
First Class Mail	$29.4	$13.3	221%
Standard Mail	$17.5	$10.5	166%
Competitive Services	$15.3	$11.0	139%

The disposition by the USPS to leverage its monopoly-based advantages to support its competitive operations is not confined to the USPS. In the 1990s, Germany's postal service, Deutsche Post AG, was charged with using revenues from its letter mail monopoly to subsidize its parcel delivery services; and in March 2001, the European Commission ruled that Deutsche Post AGI had abused its monopoly position and engaged in predatory pricing. The Commission fined Deutsche Post AG €24 million ($26.9 million) and ordering it to spin off its parcel delivery business. In June 2002, the Commission further ordered Deutsche Post AG to repay €572 million ($606.3 million) in public subsidies that it had used to undercut its private-sector competitors in the parcel delivery market from 1994 to 1998.

When the U.S. Congress set out to reform the USPS in the 1990s and early 2000s, one of its primary goals was to prevent such cross-subsidization. In 2003, the President's Commission on the United States Postal Service, an advisory group on such reforms, wrote,

[9] Ibid.
[10] PRC (2015).

> "Given… the Postal Service's presence in contested markets, it has a special duty to ensure it does not wield its monopoly and government privileges unfairly against companies that have no such advantages."[11]

Similarly, the Senate Governmental Affairs Committee wrote in 2004 that postal reform should include safeguards to ensure "open and fair competition," provide that "a level playing field is maintained and that the Postal Service does not unfairly compete" and prevent "the subsidization of competitive products by market-dominant products."[12]

The Failure of Postal Reform to Halt Cross-Subsidies

The Postal Accountability and Enhancement Act (PAEA) enacted in December 2006 attempted to minimize the USPS's monopoly-based advantages and prevent the cross-subsidization of competitive products, but its strategy for achieving those goals has been unsuccessful. One part of the strategy entailed capping annual rate increases on monopoly products at the rate of inflation:[13]

> The system for regulating rates and classes for market-dominant products shall—
>
> > (A) include an annual limitation on the percentage changes in rates to be set by the Postal Regulatory Commission that will be equal to the change in the Consumer Price Index for All Urban Consumers unadjusted for seasonal variation over the most recent available 12-month period preceding the date the Postal Service files notice of its intention to increase rates;

The PAEA also explicitly prohibits the cross-subsidization of competitive products by market-dominant products and mandates that USPS competitive products pay for or "cover" both their attributable costs and an "appropriate" share of institutional costs:[14]

> Postal Regulatory Commission shall, within 18 months after the date of enactment of this section, promulgate (and may from time to time thereafter revise) regulations to
>
> > (1) prohibit the subsidization of competitive products by market-dominant products;
> > (2) ensure that each competitive product covers its costs attributable; and
> > (3) ensure that all competitive products collectively cover what the Commission determines to be an appropriate share of the institutional costs of the Postal Service

In short, the PAEA strategy for preventing the cross-subsidization of USPS competitive products by its monopoly products consisted of a *price ceiling* on the monopoly products and a *price floor* on the competitive products. The price ceiling, which replaced cost-of-service rate

[11] Report of the President's Commission on the United States Postal Service, July 2003.
[12] U.S. Senate (2004).
[13] Section 3622(d)(1).
[14] Section 3633(a).

setting, was intended to spur the USPS to control the costs of its monopoly operations and improve their efficiency and productivity. The price floor was intended to discourage the USPS from setting prices on its competitive products at levels that would unfairly undercut private competitors. However, the PAEA did not direct the USPS on how to measure the "attributable costs" of its monopoly and competitive operations, or how to determine the "appropriate share" of institutional costs allocated to those operations, steps vital to preventing large-scale cross subsidization. As a result, the PAEA nudged the USPS in the right direction, but without requiring that it actually control costs, improve productivity or forsake predatory pricing.

How the PAEA Could Have Stopped Cross-Subsidization

The foregoing analysis shows that the USPS has strong incentives to cross-subsidize its competitive products with revenues from its monopoly operations, which the PAEA has tried to discourage through a price ceiling on USPS monopoly products and a price floor on its competitive products. Beyond these measures, the PAEA failed to create requirements or incentives that USPS set its prices to maximize its profits, or provide clear standards for accurately measuring costs.

Section 3633(a) of the PAEA establishes a price floor for USPS competitive products by directing that each of those products cover its "attributable costs." It further defines those attributable costs as "the direct and indirect postal costs attributable to such product through reliably identified causal relationships."[15] In a rulemaking published eight months after PAEA's passage, the PRC directed that compliance with the PAEA's cross-subsidization rules would be measured and evaluated by this general, loose standard:

> "This standard codifies the Commission's long-standing method of attribution under the Postal Reorganization Act… For purposes of initially implementing regulations pursuant to section 3633, the Commission intends to employ this long-established attribution method to determine compliance with section 3633(a)(2)."[16]

Some USPS stakeholders, including the National Newspaper Association, noted that by not specifying how to accurately measure the costs of USPS competitive products, the PRC has rendered many of the PAEA's provisions moot. In response, the PRC stated only that future rulemakings could address those issues:

> "The merits of one attribution methodology relative to another is an example of an issue that is too complex to be re-evaluated in a pre-implementation context. Cost attribution methods should be reviewed in other rulemaking proceedings. Whether rates properly reflect costs will be judged using the most recently approved attribution methodologies."[17]

Moreover, while the PRC suggests that its cost measurement methodology could be reviewed sometime in the future, it also has stated that the standard for doing so will be the "approved attribution methodologies" of the USPS dating back to the 1970s, before USPS

[15] Section 3631(b).
[16] Postal Regulatory Commission (2007a).
[17] Postal Regulatory Commission (2007b).

competed so directly with private companies. For example, the USPS uses a "top-down" costing approach, in which unit costs for a particular service are determined by dividing expenditures by the total units of activity. This approach is inexpensive and requires relatively little data. But it ignores the different cost drivers of mail and package delivery, as well as the factors that cause unit costs to vary across different users and places.[18] Top-down costing also cannot help determine how changes in the demands placed on different services may affect costs. By contrast, bottom-up costing approaches establish the cost of each element of the mail or package handling and delivery process, which are summed to estimate the cost of each product. The USPS Inspector General has argued that bottom-up costing "may significantly improve the utility of the cost system as a tool for management,"[19] but the PRC and USPS have ignored these arguments.

Since efforts to prevent cross-subsidization depend on accurate measurements of all USPS costs, the PAEA should have directed the PRC to establish clear standards for accurately measuring those costs. In other highly-regulated industries, the terms for measuring and allocating costs are set by regulators, not the industry being regulated. For example, the National Association of Regulatory Utilities Commissioners (NARUC) has long established guidelines for state regulators in this area and issued them in a "Model Cost Allocation Manual"[20] and, more recently, "Guidelines for Cost Allocations and Affiliate Transactions."[21] By relying on the USPS's outdated costing methodologies, the PRC has allowed the Postal Service to regulate itself with respect to the calculations required to prevent cross-subsidization.

However, the PAEA's most fundamental and critical shortcoming is its failure to effectively separate USPS's competitive products operations from its monopoly business, as separate and distinct entities. In a 2007 report, the Treasury Department noted that such a separation is a basic condition for avoiding cross-subsidization:

> "Treasury has concluded that the only viable method to begin to address the PAEA requirements for competitive products is… to treat competitive products as if they were sold by a separate, theoretical enterprise or corporation that shares economies of scale and scope with the market-dominant products."[22]

The Federal Trade Commission (FTC) reached a similar conclusion in a 2007 report examining a range of reforms designed to "level the competitive environment," including a proposal to spin off USPS's competitive products and services in a separate corporate entity. The FTC noted,

> "Establishing the USPS's competitive products division as a separate corporate entity – with either private or governmental ownership – arguably would eliminate many of the remaining major legal differences between the USPS and its private competitors."[23]

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[18] United Kingdom Cabinet Office (2014). "Top down and bottom-up unit cost estimation," http://data.gov.uk/sib_knowledge_box/top-down-and-bottom-unit-cost-estimation.

[19] USPS Office of the Inspector General (2013a)

[20] NARUC (1992).

[21] NARUC (2015).

[22] U.S. Department of the Treasury (2007).

[23] Federal Trade Commission (2007).

Congress thus far has chosen to not pursue this recommendation by the Treasury and the FTC; instead, Congress has merely directed the USPS to divide its assets between the Postal Service Fund (PSF) and the Competitive Products Fund (CPF).[24] While segregating the system's assets in distinct accounts was a sensible step, it does not establish a meaningful separation between the Postal Service's competitive and market-dominant lines of business.

The CPF was created to collect the revenues from USPS's competitive products, make payments to cover the institutional costs of the competitive operations and the federal income tax liabilities arising from those operations, and hold any additional earnings for future investments in competitive operations. Federal law appears to require that the PSF and CPF maintain strict separation;[25] in practice, the two funds co-mingle their assets. For example, the CPF held approximately $1.1 billion at the end of FY 2012, in addition to $808.6 million in pre-tax net income from its competitive operations in FY 2012. On October 12, 2012, less than two weeks after the close of FY 2012, the $1.9 billion balance of the CPF was simply transferred to the PSF "as a prepayment of competitive products' shares of future years' institutional costs."[26] The USPS further informed the PRC that in order to cover certain costs associated with its competitive products operations, it also would transfer funds from the PSF to the CPF, as required.[27] At a minimum, these unorthodox accounting practices show clearly that the USPS does not treat these two funds or its two lines of business as separate and distinct entities.

The impact of the PAEA's failure to separate and segregate USPS's competitive products business from its monopoly operations has been aggravated by the Act's failure to establish incentives for the USPS to maximize the profits from its competitive products operations. Many analysts have assumed that the USPS sets the prices for its competitive products in order to maximize its profits. For example, the PRC wrote in an August 2012 regulatory filing that several factors influenced its decision to set the appropriate share requirement at 5.5 percent, including the fact that, "… under the PAEA, the Postal Service may retain earnings, so it has an incentive to exceed the threshold set by the Commission."[28]

For its part, the USPS insists that it sets the prices of its competitive products to maximize its profits. In reply comments submitted to the PRC in May 2012, the USPS wrote that, "the Postal Service aims to maximize the contribution from competitive products" and that "the Postal Service will not shift away from its contribution-maximizing approach."[29] Yet, the USPS's comments submitted just one month earlier contradict those claims: In those comments, the Postal Service noted that since Congress enacted the PAEA, "the Postal Service has become accustomed to considering the effect of competitive product pricing decisions on the level of total institutional costs that competitive products will cover." The USPS also noted that changing the method by which the PRC estimates institutional costs for competitive products could "unnecessarily disrupt the Postal Service's pricing strategies."[30]

[24] 39 USC Sections 2003 and 2011.
[25] *Ibid.*
[26] Postal Regulatory Commission (2013a).
[27] *Ibid.*
[28] Postal Regulatory Commission (2012).
[29] U.S. Postal Service (2012c).
[30] U.S. Postal Service (2012b).

The USPS comment suggests that the PRC's requirement that its competitive operations cover an "appropriate share" of all USPS institutional costs directly influences USPS pricing decisions.[31] But if the USPS operated its competitive line of business to maximize its profits, the USPS would price its competitive products and services at whatever levels produced the greatest profits. Further, the USPS has directly acknowledged that changes to the appropriate share requirement could "disrupt" its pricing strategies. This is not the approach of a profit-maximizing firm, but rather the behavior and rationale of an organization seeking to break even.[32]

III. Assessing the Extent of USPS Cross-Subsidies

By failing to wholly separate its competitive business line from its market dominant operations or spin off the competitive operations, and failing to create incentives for USPS to behave like a profit-maximizing firm with clear standards for measuring costs, the PAEA and PRC have allowed the USPS to cross-subsidize its competitive products with revenues from its monopoly products. Next, we will analyze how USPS conducts this cross-subsidization and estimate a substantial part of the value of those cross subsides.

Cost Attribution

We begin by reviewing USPS's costing methodology in greater detail. The USPS uses "Activity Based Costing" (ABC), a methodology with three basic elements. Under ABC, USPS first disaggregates the general accounting data into 18 activities or "cost segments," based on cost drivers such as "Postmasters, Clerks and Mail Handlers" and "City Carrier Street Costs" and the cost components and subcomponents of each cost driver. Second, USPS identifies those costs that can be assigned clearly to a specific product or service, as that product or service's "attributable costs," and classifies the remaining cost segments as "institutional" costs. In the third step of ABC, USPS distributes the attributable or product-specific costs from each cost segment among its individual products and services.[33] The Office of Inspector General of the USPS reports that the application and use of the ABC methodology costs USPS about $100 million per-year.[34]

To summarize at the most general level, total costs are simply the sum of attributable costs and institutional costs. The USPS estimates that its attributable costs currently represent a little more than half of all of its costs.[35] USPS divides those attributable costs into "volume-variable" costs, for which a product's unit costs vary with changes in its volume, and "product-specific fixed costs," which are fixed costs that can be attributed to a specific product or service. Moreover, USPS holds that its volume-variable costs comprise more than 97 percent of all attributable costs, and calculates their total by multiplying marginal cost times volume:

Attributable Costs = Volume-Variable Costs + Product-Specific Fixed Costs; and
Volume-Variable Costs = Marginal Cost x Volume

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[31] U.S. Postal Service (2012c).
[32] Numerous academic studies have shown that state-owned enterprises such as USPS often pursue goals other than profit-maximization, including the maximization of revenue or output. See, for example, Sappington and Sidak (2003).
[33] For more, see U.S. Postal Service Office of Inspector General (2013a).
[34] U.S. Postal Service Office of Inspector General (2013b).
[35] USPS Cost & Revenue Analysis 2013.

It should be said that there is no economic justification for the USPS's assertion that the fixed (non-volume-variable) costs which can be attributed to specific services and products account for just 3 percent of the total, non-institutional costs attributable to those specific services and products. For example, USPS runs an ad campaign for its package delivery products and service. Since USPS offers various types of packages and deliveries, it cannot count the ad campaign's cost as a product-specific fixed cost.

The institutional costs represent general overhead costs that cannot be attributed to a specific product or service, and include most delivery costs. USPS divides these institutional costs into fixed institutional costs, which do not vary with volume; and "infra-marginal" or network institutional costs, which decline on a unit basis as volume increases:

Institutional Costs = Fixed Costs + Infra-Marginal (Network) Costs

AS suggested above, one problematic aspect of this costing methodology is its division or "cost attribution" between attributable costs and institutional costs. This cost attribution is pivotal, because attributable costs provide the baseline for determining how fairly or accurately USPS prices its products and services. If the USPS *overestimates* these attributable costs, a fair and proper price could be seen as unreasonably low; and if it *underestimates* those attributable costs, an unreasonably low price could appear to be proper and fair.

The importance of accurately determining cost attribution is widely recognized. The President's Commission on the United States Postal Service wrote in 2003 that improving the Postal Service's cost-allocation system should be a "top priority," with the goal of attributing 60 percent to 100 percent of its costs, rather than less than 50 percent:

> "The [cost allocation] system is not without controversy, due primarily to the fact that more than 40% of costs fall into this general category of institutional costs. Testimony presented to the Commission on this topic was contradictory. While the Postal Service claims that significant improvements are not feasible, one leading private-sector carrier noted it had a procedure for achieving 100% cost allocation. The Commission feels that the appropriate target for the Postal Service lies somewhere in between. While the Commission hesitates to prescribe a percentage, there is a strong consensus that an attribution level of less than 60% is far too low, and would not be considered acceptable in similar private-sector ventures." [36]

In 2004, the Senate Governmental Affairs Committee echoed these concerns, declaring that accurate cost attribution is "essential to … avoiding inequitable cross-subsidization."[37] Further, the Committee suggested that the USPS's actual cost allocations served the purpose of *underpricing* its competitive products:

> "The Postal Service should be able to attribute a greater percentage of its costs. If they do this, it is likely that a greater share of costs can be attributed to competitive

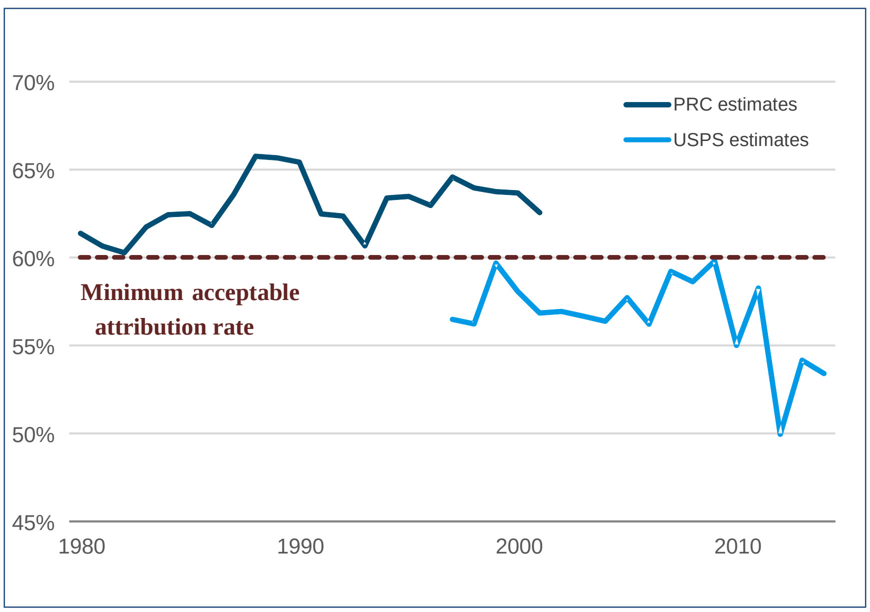
[36] Report of the President's Commission on the United States Postal Service, July 2003.
[37] U.S. Senate (2004).

products and, to the extent that they can be, should be reflected in the rates charged for those products."[38]

The Federal Trade Commission and the U.S. Treasury Department reiterated these concerns in 2007. The FTC wrote that, "[t]he USPS should endeavor to attribute the costs associated with its implicit subsidies to either competitive or market-dominant products to the fullest extent possible, rather than included as institutional costs."[39] Similarly, the Treasury Department noted that, "[b]ased on discussions with the USPS, Treasury understands that USPS is moving apace to modify its cost accounting system to attribute costs, using its existing procedures, to the greatest extent possible to competitive products as defined by PAEA."[40]

Despite these widespread concerns, the USPS has not improved its cost attribution system. Rather, there is considerable evidence that the system has deteriorated. Since the 2007 Treasury report, the Postal Service's cost attribution has declined from 59.2 percent (FY 2007) to 49.9 percent (FY 2012), or more than 10 percentage points below the attribution rate determined by the President's Commission to be the *minimum* acceptable level. In FY 2014, the attribution rate was only marginally higher better at 53.4 percent. Moreover, the USPS has consistently lower cost attribution rates than the PRC. (Figure 1 below)

Figure 1: USPS Cost Attribution Rates, USPS and PRC Estimates, FY 2010 - 2013



In summary, the evidence point to the USPS consistently and substantially underestimating its attributable costs, leading to improperly low prices for its competitive products and services.

[38] U.S. Senate (2004).
[39] Federal Trade Commission (2007).
[40] U.S. Department of the Treasury (2007).

Institutional Costs

In addition to underestimating its attributable costs, the USPS costing methodology's allocation of institutional costs between its competitive and monopoly operations is flawed and inaccurate. The PAEA directs that USPS competitive operations cover an "appropriate share" of all USPS institutional costs,[41] but the Act does not define what would constitute an "appropriate share." That responsibility fell to the PRC. Accuracy is very important here. Allocating too large a share of those institutional costs to USPS's competitive operations would unfairly increase their costs and damage their competitiveness. At the same time, allocating too small a share of institutional costs to competitive operations creates a tacit cross-subsidy from USPS's monopoly business and thereby gives its competitive operations an improper advantage in the market.

The PRC tenet that USPS's competitive operations cover their proper share of the entire system's institutional costs, in effect, became a PRC test for cross-subsidy. This approach is deeply flawed, especially when the PRC tolerates an inappropriately low level of attributable costs. In addition, the PRC's measure of the proper share of institutional costs approach to be borne by the competitive operations bears no relation to the actual, evolving dimensions of those operations.

The PRC considered tying the competitive line's appropriate share of institutional costs to its share of total USPS revenues, but ultimately chose a different approach: On August 15, 2007, the PRC proposed setting the minimum contribution level at 5.5 percent of the USPS's total institutional costs, based on an assessment indicating that the competitive products had accounted for 5.4 percent of those institutional costs in FY 2005 and 5.7 percent of those costs in FY 2006.

> "Setting the initial competitive products' contribution at historic levels is a reasonable means to quantify appropriate share… the Postal Service should perform at least as well as it has historically … [this approach] is more easily understood than the various alternatives."[42]

On October 29, 2007, the PRC adopted final regulations for a 5.5 percent appropriate share, writing that "[a]nnually, on a fiscal year basis, the appropriate share of institutional costs to be recovered from competitive products collectively is, at a minimum, 5.5 percent of the Postal Service's total institutional costs."[43] However, the PRC also retained the option of using revenues or other benchmarks as metrics to estimate the appropriate share of institutional costs in the future:

> "In the future, the appropriate percent of joint production costs that are allocated to competitive products may be greater or less than the 5.5 percent currently applied to total institutional costs, which was based on historical cost coverages rather than the concept of causation. An appropriate share of joint production costs may be developed using market-based data such as revenue or physical measures such as volume or weight."[44]

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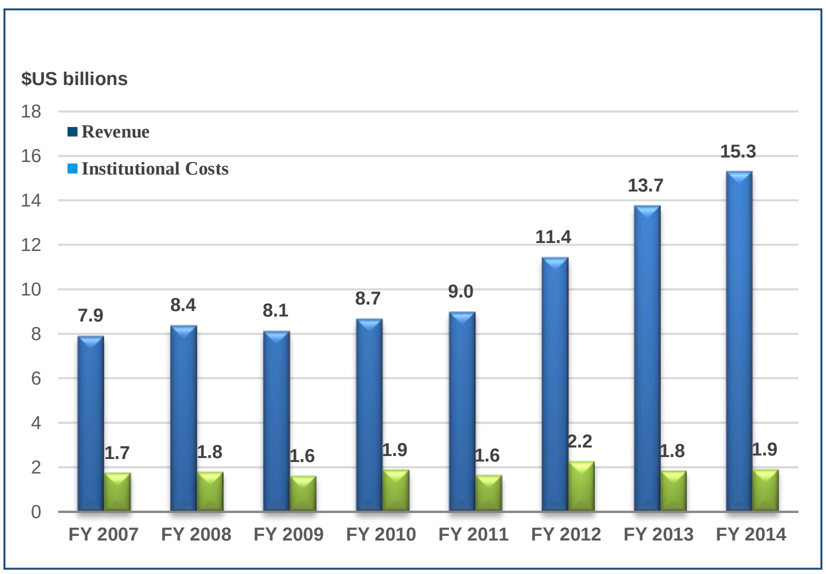
[41] PAEA, Section 3633(a)3.
[42] Postal Regulatory Commission (2007a).
[43] Postal Regulatory Commission (2008). Section 3015.7(c).
[44] Postal Regulatory Commission (2008).

The PRC also noted that the USPS competitive operations might contribute more than 5.5 percent of total institutional costs, reasoning that "because it may retain earnings, the Postal Service has incentives to exceed this threshold"[45] The PRC's logic here was misplaced, since as we noted earlier, the USPS does not have incentives to maximize profits from its competitive operations. In that regard, the USPS noted in a May 2012 filing that it pays out exactly "the sum of 5.5 percent of total institutional costs plus the imputed tax payment due from competitive products"[46] at the end of each fiscal year, the minimum contribution required by PRC regulation. Even that accounting overstates the actual contribution: As noted in our earlier study, the imputed tax payments from USPS competitive operations are deposited in a special CPF account at the Treasury Department, which the USPS draws on at its discretion.[47] Nor would the USPS welcome any change, writing recently that a change in the 5.5 percent allocation of institutional costs would "unnecessarily disrupt the Postal Service's pricing strategies."[48]

A number of analysts have concluded that the 5.5 percent appropriate share level is too low, given the rapid growth of USPS's competitive operations. Since FY 2007, when the 5.5 percent requirement was established, revenues from USPS's competitive products have increased from $7.9 billion to $15.3 billion in FY 2014, for cumulative growth of 93.7 percent and average annual growth of 9.9 percent. Over the same period, the contribution of those competitive operations to USPS institutional costs increased from $1.7 billion to $1.9 billion, or cumulative growth of 11.8 percent and average annual growth of just 1.2 percent. These disparities have been especially large since FY 2012 as the growth of revenues from USPS's competitive operations has accelerated. (Figure 2 below)

Figure 2. The Revenues and Contributions for Institutional Costs of USPS Competitive Operations, FY 2007-2014 ($ billions)



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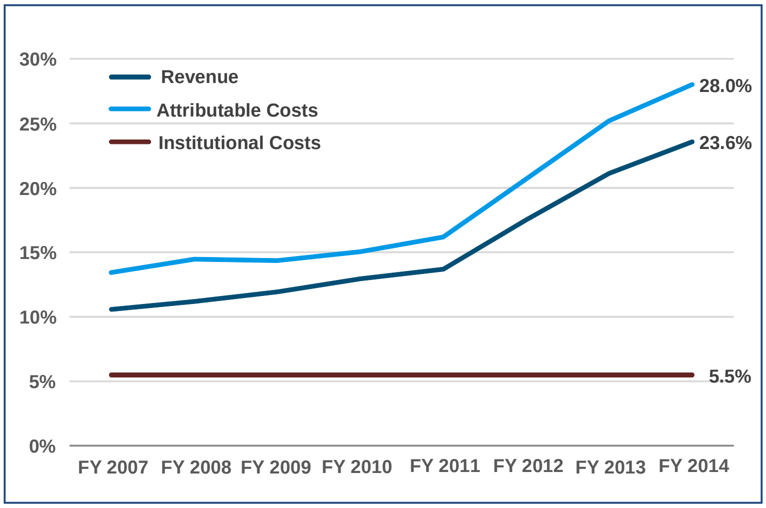
[45] Postal Regulatory Commission (2007a).
[46] Response of the United States Postal Service to Chairman's Information Request No. 1, Docket No. RM 2012-3, May 23, 2012.
[47] Shapiro (2015).
[48] U.S. Postal Service (2012b).

As a result, the USPS's competitive operations accounted for 23.6 percent of USPS revenues in FY 2014, compared to 10.6 percent in FY 2007 – a 122.6 percent increase. The attributable costs of those operations also rose sharply, from 13.4 percent of all USPS costs in FY 2007 to 28.0 percent in FY 2014, for growth of 109.0 percent. Yet, USPS has continued to attribute a flat 5.5 percent of its total institutional costs to competitive operations. (Figure 3 below)

Figure 3. USPS's Competitive Operations: Their Share of USPS Revenues, Attributable Costs and Institutional Costs, FY 2007 – FY 2014



The PRC has acknowledged that in order to ensure a "level playing field in the competitive marketplace," the appropriate share requirement must capture "the fixed costs of the competitive enterprise," including use of retail offices, vehicles, and other infrastructure, "and should reflect the ways in which institutional resources are spent on the competitive enterprise."[49] The PRC also has noted that the appropriate share requirement is "an important safeguard to ensure fair competition on the part of the Postal Service."[50] Yet, it is virtually impossible for an organization to increase its revenues 94 percent over seven years while its fixed costs rise less than 12 percent. Moreover, economists have noted that such underestimations and misallocations are central to most instances of cross-subsidy. One recent study, for example, noted that most often, cross-subsidies are "implemented by means of misallocations of multiproduct, regulated firms' common costs" as well as "misestimation of common costs."[51]

The unchanging 5.5 percent allocation of institutional costs to USPS's growing competitive business lines is also a factor in the decline in the cost attribution rate from 59.2 percent in FY 2009 to 53.4 percent in FY 2014, discussed earlier. The unchanging 5.5 percent appropriate share requirement for USPS's competitive operations encourages the USPS to classify more costs as "institutional" and thereby force its relatively price-inelastic monopoly customers to shoulder a larger share of costs. If the PRC raised this 5.5 percent share to a more reasonable level, USPS would have less incentive to misallocate costs and its attribution rate would likely rise.

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[49] Postal Regulatory Commission (2012).
[50] *Ibid.*
[51] Burton, Kaserman and Mayo (2009).

IV. Estimating Current USPS Cross Subsidies

Based on the above analysis, the most basic flaws in the USPS's costing methodology are its allocation of costs between attributable costs and institutional costs, and its allocation of institutional costs between its competitive and monopoly operations. Here, we will estimate the extent of the USPS cross-subsidies based primarily on its 5.5 percent allocation of institutional costs to competitive operations. We begin by replacing the 5.5 percent appropriate share with a more market-based estimate that should better approximate the actual institutional costs of USPS's competitive operations. On that basis, we can better estimate the total costs of USPS's competitive operations, and therefore the extent of the cross-subsidies they receive.

First, we review the FY 2014 revenues and attributable costs for the USPS's six major competitive products as reported by the USPS: priority mail, ground delivery, international shipping, first class packages, priority mail express, and other domestic services. We posit that the share of USPS revenues generated by its competitive operations is related broadly to its share of the Postal Service's total institutional costs, because its share of revenues should roughly approximate the extent to which it draws on the Postal Service's fixed investments and the costs of maintaining them. We similarly posit that a competitive product's share of the USPS's total attributable costs is also related roughly to its share of USPS's total institutional costs.

Using these market-based benchmarks, we can generate reasonable estimates of each competitive product's institutional costs by multiplying a product's share of revenues by the system's total institutional costs, and then alternatively, by multiplying a product's share of all attributable costs by the system's total institutional costs. Next, we calculate the net income for each of the competitive product's net income by subtracting the product's attributable costs as reported by USPS and our market-based estimates of its institutional costs, from the total revenues generated by the product. In this calculation, a negative net income signifies the cross subsidy. Finally, we derive the effective rate of cross-subsidy for each product by dividing its net income by its total revenues, or alternatively, dividing its net income by its total attributable costs. The results are provided in Tables 3-A and 3-B, below.

Table 3-A: Estimated USPS Subsidies, Based on the Competitive Products' Share of All USPS Revenues, FY 2014 ($ millions)

Products	Revenues	Attributable Costs	Share of All Revenues	Estimated Institutional Costs	Net Income	Subsidy
Priority Mail	$6,884.	$5,234	10.3%	$3,519	-$1,870	27.2%
Ground Shipping	$3,160	$2,472	4.7%	$1,616	-$927	29.3%
International	$2,319	$1,385	3.5%	$1,836	-$251	10.8%
1st Class Package	$1,462	$1,155	2.2%	$747	-$440	30.1%
Priority Mail Express	$760	$366	1.1%	$33	$6	0.8%
Other Domestic Services	$695	$359	1.0%	$355	-$19	2.7%
All Competitive	**$15,280**	**$10,970**	**22.9%**	**$7,812**	**-$3,502**	**22.9%**
All Mail & Services	$66,870	$39,175	100.0%	$34,187		

Table 3-B: Estimated USPS Subsidies, Based on the Competitive Products' Share of All USPS Attributable Costs, FY 2014 ($ millions)

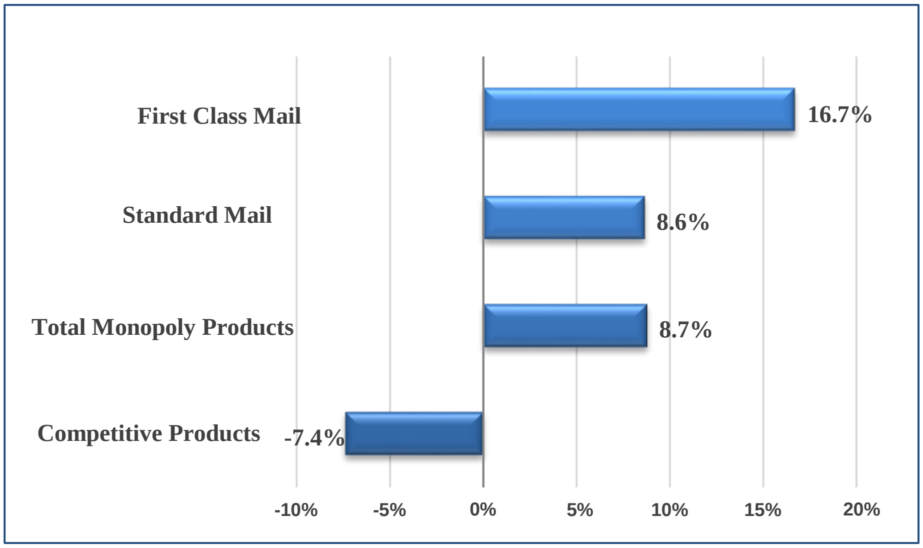
Products	Revenues	Attributable Costs	Share of All Attributable Costs	Estimated Institutional Costs	Net Income	Subsidy
Priority Mail	$6,884.	$5,234	13.4%	$4,568	-$2,918	42.4%
Ground Shipping	$3,160	$2,472	6.3%	$2,157	-$1,469	46.5%
International	$2,319	$1,385	3.5%	$1,208	-$274	11.8%
1st Class Package	$1,462	$1,155	2.9%	$1,008	-$701	47.9%
Priority Mail Express	$760	$366	0.9%	$319	$75	9.9%
Other Domestic Services	$695	$359	0.9%	$313	$24	3.4%
All Competitive	**$15,280**	**$10,970**	**28.0%**	**$9,573**	**-$5,263**	**34.4%**
All Mail & Services	$66,870	$39,175	100.0%	$34,187		

Applying this methodology, we find that the USPS's systemic underestimation and undervaluation of the benefits which USPS's competitive operations derive from its use of USPS's institutional resources, as captured by the 5.5 percent share of the costs of those resources allocated to competitive products, constitute a large cross-subsidy. If we use the share of USPS revenues generated by those operations and products as a proxy for their use of USPS's institutional resources, it implies an annual cross-subsidy in FY 2014 of $3.5 billion and a cross-subsidy rate of 22.9 percent. (Table 3-A above). If we use the share of the Postal Service's total attributable costs allocated to its competitive operations as the proxy for their use of USPS institutional resources, it implies an annual cross-subsidy in FY 2014 of nearly $5.3 billion and a cross-subsidy rate of 34.4 percent. (Table 3-B above) These estimates provide a range for the lower bound of USPS cross-subsidization, since they capture only cross-subsidies tied to the use of USPS institutional resources by its competitive operations. Given our previous analysis of Postal Service incentives to cross-subsidize its competitive operations, we would expect that USPS also systematically underestimates and undervalues the attributable costs of its competitive operations. We cannot reasonably estimate the extent of this additional undervaluation and the consequent cross-subsidization tied to it without access to detailed cost data which USPS will not disclose.

Our lower-bound analysis tied only to institutional costs indicates that the largest cross-subsidies in this class support USPS's competitive Priority Mail products, which received cross-subsidies of $1.9 billion to $2.9 billion in FY 2014, followed by Ground Shipping with cross-subsidies of $0.9 billion to $1.5 billion in that year, and First-Class Package service with cross subsidies of $440 million to $700 million in FY 2014. The highest rates of cross-subsidy benefitted First Class Package services, with effective subsidy rates of 30.1 percent to 47.9 percent in FY 2014, followed by Ground Shipping with effective subsidies of 29.3 percent to 46.5 percent in that year, and Priority Mail with subsidy rates of 27.2 percent to 42.4 percent.

Other analytic evidence confirms the general dimensions of these estimates, including analysis of revenues produced per-unit of product by USPS's monopoly operations and its competitive operations. Cross-subsidization generally involves raising the price of those products about which people are relatively price-insensitive, and cutting the price of products about which people are price sensitive. As one should expect with large-scale cross-subsidization, USPS revenues per-unit from its monopoly operations grew substantially from FYs 2007 to 2014, averaging an 8.7 percent unit price increase; while USPS revenues per-unit of USPS competitive products fell 7.4 percent over the same period. (Figure 4, below)

Figure 4: Growth in USPS Revenues Per-Unit, Monopoly and Competitive Products, FY 2007-FY 2014



Since USPS monopoly and competitive products use many of the same or interchangeable facilities, equipment and labor, we can derive another rough approximation of USPS's cross subsidies by applying the percentage-increases in revenues per-unit from its monopoly operations (with an upper bound of 16.7 percent and a lower bound of 8.6 percent) to the revenues per-unit from the competitive business. We multiply this hypothetical revenues per-unit for the USPS's competitive products by the number of units produced by its competitive operations in FY 2014, and the difference between that total and the actual revenues of USPS's competitive operations in FY 2014 represents the cross subsidy in that year. This approach suggests that USPS competitive products received subsidies from USPS monopoly operations that totaled $2.6 billion to $4.0 billion in FY 2014, an estimate of the same general dimensions of our cross-subsidy estimates of $3.5 billion to $5.3 billion based on shares of revenues and attributable costs.

Another Way to Estimate USPS Cross-Subsidies

A previous study by this author analyzed the range of direct subsidies which the USPS receives in reference and deference to its monopoly functions.[52] For example, its ability to borrow at preferential rates from the Treasury saves the USPS about $450 million per-year in debt service; and its formal exemption from state and local taxes and fees, especially real estate taxes, saves USPS nearly $2.2 billion per-year. In addition, we found that the USPS' exclusive right to leave mail and packages in residential and business mailboxes, rather than at the front door of each residence or business as private delivery companies must do, saves the USPS an estimated $14.5 billion.

[52] Shapiro (2015).

Most of these subsidies also reduce costs for USPS's competitive operations. The interest rate subsidy on the $15 billion borrowed by the USPS from the Treasury clearly is shared by both its monopoly and competitive operations; and the exemptions from state and local taxes and fees cover facilities, equipment and vehicles used by USPS's competitive as well as monopoly business lines. Finally, the $14.5 billion in savings from USPS's right to leave mail and packages in mailboxes rather than at customers' doors apply to the express mail and package deliveries by USPS's competitive business line as well as the deliveries under its monopoly business. The one exception is the USPS's effective exemption from federal income taxes on the earnings from its competitive operations, worth about $850 million annually in recent years. USPS deposits those tax payments in a special Treasury revolving fund, which USPS then can draw on at its discretion. This special privilege amounts to a direct subsidy of USPS's monopoly business line by its competitive operations, and therefore cannot be considered a way to artificially lower the costs and prices of its competitive products and services.

The question is how to best estimate the extent to which the USPS uses these other subsidies to cross-subsidize its competitive products and services. One way to arrive at a rough approximation is to apply the share of all USPS attributable costs or the share of all USPS revenues associated with its competitive operations to the value of the three appropriate subsidies. This could provide a very conservative lower-bound for the cross subsidies since, as noted earlier, the USPS understates the attributable costs of its competitive operations. Furthermore, USPS's cross subsidies artificially depress the revenues from its competitive products and services, and with their share of total USPS revenues. At a minimum, therefore, we will apply the larger share – the 28 percent of attributable costs linked to USPS's competitive operations – and approach the result as a conservative lower bound. This exercise produces an estimate of $4.9 billion in cross subsidies:

> *0.28 x [$450 million (interest rate subsidy) + $2.2 billion (exemption from state and local taxes and fees) + $14.5 billion (mailbox monopoly)] = 0.28 x $17.15 billion = $4.9 billion.*

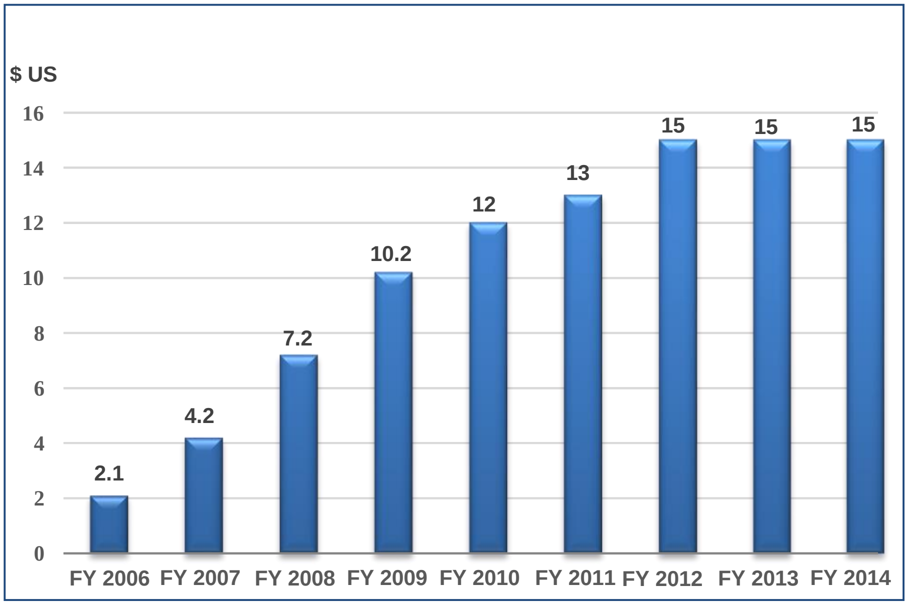
This exercise and the $4.9 billion per-year result appear to confirm the upper end of the previous two lower-bound estimates of annual cross-subsidies, at $4.0 billion and $5.3 billion per-year.

The Most Recent Source of USPS Cross-Subsidies

One final issue involves how the USPS can finance these large cross-subsidies. As noted earlier, the PAEA capped annual increases in the prices of USPS monopoly products at the overall rate of inflation.[53] Congress included this cap on price increases to ensure predictable, stable prices for consumers, and encourage the USPS to control costs and improve its efficiency and productivity. In the early years of the PAEA, this cap also prevented the USPS from extracting additional revenues from its monopoly operations, and USPS offset losses from its competitive operations by borrowing from the U.S. Treasury through the Federal Financing Bank. The USPS's Treasury debt is capped by law at $15 billion, which USPS reached in FY 2012 (Figure 5 below)

[53] Section 3622.

Figure 5: USPS Debt, FYs 2007-FY 2014 ($ billions)



With additional loans from the Treasury blocked, USPS has turned to the "exigent rate" provision of the PAEA.[54] This provision allows USPS to raise the prices of its monopoly products above the normal cap on those increases, provided that the increase is "reasonable and equitable and necessary" and reflects "extraordinary or exceptional circumstances."[55] In July 2010, the USPS filed its first request for an exigent rate increase with the PRC, arguing that losses arising from the 2008-2009 recession should be offset by a 5.6 percent increase in the prices of its monopoly products. The PRC rejected the request, holding that the USPS had failed to show that the proposed prices increases were justified by the "extraordinary or exceptional circumstance" of the recession, rather than simply due to the USPS's need for more revenues. The PRC ruled that the exigent rate provision was a narrowly-drawn exception to the price cap and "may not be invoked simply by demonstrating a need for revenues."[56] The PRC further noted,

> "There is no doubt that the Postal Service is attempting to address its current financial crisis. But its claim that its current financial crisis is caused by the recession and recent volume declines is never proven."

In September 2013, USPS filed another request for an exigent rate increase of 4.3 percent for its monopoly products, citing again its purported losses from the 2008-2009 recession. Three months later, in December 2013, the PRC granted the request, although only on a temporary basis: The Commission found that the recession had caused a decline in USPS mail volume of some 25.3 billion pieces from 2008 to 2011, which purportedly cost the USPS $2.8 billion in foregone profits. On this basis, the PRC authorized the USPS to apply a surcharge on its monopoly products sufficient to raise an additional $3.2 billion in revenues.

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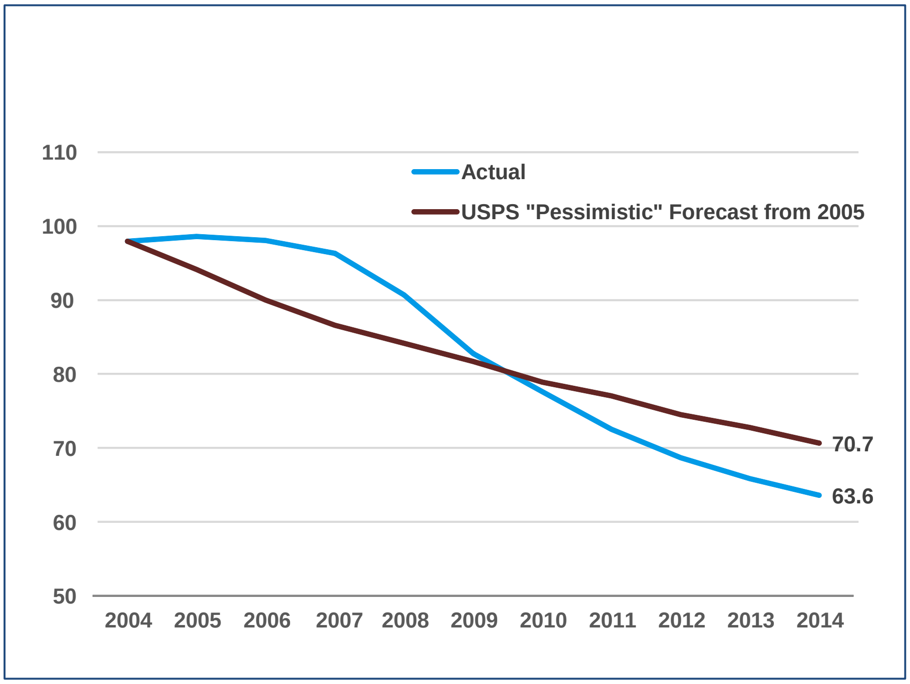
[54] Section 3622.
[55] Postal Accountability and Enhancement Act (2006).
[56] Postal Regulatory Commission (2010).

This decision is notable in several respects. First, the PRC approved the request for recession-related rate relief filed in September 2013, almost four years after the recession ended and after rejecting a virtually identical request filed 12 months after the recession ended. Further, the PRC ignored USPS's own testimony that the recession was not the major factor in declining demand for its monopoly products: While USPS's 2013 request claimed that the recession was responsible for a 25 percent decline in mail volume from FY 2008 to FY 2012,[57] the USPS's "Five-Year Business Plan" released in February 2012 had found that "electronic diversion is the primary driver of first-class mail volume decline."[58] Similarly, while the rate request claimed that the Postal Service had incurred its recent losses due to the "extraordinary or exceptional circumstances" of the 2008-2009 recession, the USPS forecast large losses in mail volume due to "increased electronic diversion," in its 2005 Strategic Transformation Plan issued more than two years before the recession began.[59] This pessimistic forecast was also detailed in a 2006 report by USPS witness Peter Bernstein.[60] (Figure 6, below) Based on that analysis, the 2008-2009 recession could be tied to a decline of some 5.9 billion pieces of First Class mail in FY 2012, or about 11.0 percent of the total decline in mail volume in that year.

Figure 6: Total First-Class Mail, USPS 2005 Forecast and Actual Volume, FYs 2005-2014 (billions)



The results also are notable. Mass mailers appealed the rate increases to the U.S. Court of Appeals, where USPS argued that the increases should be permanent. The Court denied the

[57] Mail volume fell by 189.7 billion pieces from FYs 2008 to 2012 and by 53.5 billion pieces in FY 2012.
[58] U.S. Postal Service (2012a).
[59] U.S. Postal Service (2005).
[60] Bernstein (2006).

requests of both the mass mailers and the USPS, criticized USPS's accounting, and directed that the rates should be rolled back once the USPS had recovered $2.8 billion.[61]

The PRC's role in this episode cannot be overlooked. One recent study noted that "the economic theory of regulation … suggest that regulators' self-interests may be best served by promoting rather than restraining cross-subsidization."[62] In this way, the authors argue, regulators can enhance their political support from the interest groups served by the cross-subsidies, which in this case would include USPS workers and vendors, mass mailers and the corporate customers of its competitive products and services.

However, the PRC order granting this exigent rate increase was not unanimous: It included comments and dissenting opinions from PRC commissioner Mark Acton and PRC vice chairman Robert Taub. Commissioner Acton noted in his comments:

> "The Postal Service in this docket endeavors to use an exigent rate request, not as a precise and tailored instrument to make it whole for a discrete set of extraordinary or exceptional circumstances, but as a panacea to ameliorate underlying costs related to fundamental ongoing structural problems …. 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)." [63]

Commissioner Acton is correct. The USPS used the exigent rate provision to secure additional resources to cross-subsidize its competitive operations -- and then tried to make the increases permanent. And as expected, USPS's efforts to raise the prices of its monopoly products has continued, including recent calls to increase rates on first class mail of more than one ounce, postcards, and media mail.

V. Conclusions

The United States today supports and maintains a hybrid model for its postal service: One entity, the USPS, operates both a monopoly service in the delivery of letter mail, periodicals and standard mail, and a competitive service for the delivery mainly of express mail and packages. This approach has serious structural problems that ultimately distort the competitive delivery market. To begin, the monopoly operations enjoy and depend on a number of substantial tax and regulatory-based subsidies, but many of those subsidies have been tacitly extended to USPS's competitive operations. Both business lines, for example, enjoy the exclusive right to leave their deliveries in customers' mailboxes; they both also use many of the same facilities, which enjoy special exemptions from state and local property and real estate taxes; and they both also draw on a fleet of vehicles exempt from fuel taxes and immune from parking tickets. The USPS also comingles the financial assets and resources of the two business lines, despite the fact that the Treasury, in accordance with the law, maintains separate funds for USPS's monopoly business and for its competitive operations.

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[61] Alliance of Nonprofit Mailers, *et al.*, *versus* Postal Regulatory Commission (2015).
[62] Burton, Kaserman and Mayo (2009).
[63] Postal Regulatory Commission (2013b).

Beyond these overlapping subsidies and assets, the USPS's hybrid organization provides powerful incentives to use resources from its monopoly operations to subsidize its competitive operations. These incentives are based on the two business lines' contrasting demand elasticities: The customers for USPS's monopoly services, with few alternatives to those services, are much less sensitive to price increases than the customers for USPS's competitive services, with numerous other private-sector options. As a result, the USPS has strong economic incentives to raise the prices for its monopoly services and use those and other resources to keep the prices for its competitive services artificially low.

One of the primary goals of the Postal Accountability and Enhancement Act (PAEA) was to prevent such cross-subsidization; in this regard, it has failed. Our analysis found that the USPS uses resources from its monopoly operations to subsidizes its competitive products by 1) shifting some "attributable" costs – cost which could be attributed to particular activities and products– to the category of "institutional" or system-wide costs, and 2) by capping the share of those institutional costs borne by its competitive operations at 5.5 percent, even as USPS's competitive services have grown much more rapidly than its monopoly operations. Unlike other highly-regulated sectors, such as electric utilities, the USPS and not its regulators writes its own rules for estimating and distributing all of those costs. As a result, the USPS also has the opportunity and incentive to "mis-estimate" various costs. Finally, the USPS's regulator, the Postal Regulatory Commission, has participated in the cross-subsidization, as by setting the 5.5 percent share of institutional costs to be borne by the competitive operations, and failed to hold the USPS to stricter account.

The current cross subsidies are substantial. Using two market-based benchmarks for the USPS competitive business – its share of total USPS revenues, and its share of total USPS attributable costs – we estimate that the 5.5 percent cap allowed the USPS to provide cross-subsidies to its competitive operations worth \$3.5 billion to \$5.3 billion in FY 2014. A third benchmark based on revenues per-unit from USPS's monopoly and competitive operations also found substantial cross-subsidies, estimated at \$2.6 billion to \$4.0 billion in FY 2014. Finally, an analysis based on allocating a reasonable share of USPS's total subsidies to its competitive business line estimates the cross subsidies at \$4.9 billion per-year. Since USPS understates the attributable costs and net revenues from its competitive operations, these estimates represent a conservative lower bound of USPS cross-subsidies.

These large cross-subsidies artificially distort the prices and returns on private sector delivery services by diverting demand from more efficient and otherwise lower-cost providers to the USPS's competitive operations. The cross-subsidies also discourage new entrants to this market and greater investment by private firms currently providing those delivery services. As a result, the cross-subsidies harm American consumers by reducing the efficiency and innovation in the market for private delivery service. We conclude, along with the President's Commission on the Postal Service and the Federal Trade Commission, that the best way to end these cross-subsidies and promote a more efficient and innovative marketplace is to separate the USPS's two business lines into separate entities that do not share facilities, equipment, workers and financial assets.

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