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BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268-0001

POSTAL RATE AND FEE CHANGES, 2006 **DOCKET NO. R2006-1**

DIRECT TESTIMONY
OF PETER A. ANGELIDES, Ph.D.
ON BEHALF OF
THE ASSOCIATION FOR POSTAL COMMERCE AND
THE MAILING AND FULFILLMENT SERVICE ASSOCIATION

Communications with respect to this document may be sent to:

Ian D. Volner
Rita L. Brickman
Jennifer Mallon
Venable LLP
575 7th Street NW
Washington, DC 20004
(tel) 202-344-4800
(fax) 202-344-8300

Counsel for PostCom and MFSA

Direct Testimony

I. Autobiographical Sketch

My name is Peter A. Angelides. I am a Manager at PricewaterhouseCoopers (PwC), where I have worked since 2001. Prior to PwC, I worked at Putnam, Hayes & Bartlett (later PHB Hagler Bailley) from 1997-1999 and Charles River Associates from 1999-2001. I am located at PwC's office in Philadelphia. I also teach a master's level course in urban economics at the University of Pennsylvania.

I have over nine years of economic consulting experience, including extensive experience with regulatory proceedings and commercial litigation. My work often involves the preparation of testimony, as well as the economic analysis of markets and companies.

In Docket R97-1 I analyzed the system-wide cost coverages and modeled the impact of alternative pricing theories on rates for the various classes of mail. This resulted in the preparation of testimony by witness J. Stephen Henderson. In addition, I analyzed the incremental cost estimates of Postal Service witness Takis for consistency with the pricing criteria in the Postal Reorganization Act.

I have also conducted analyses and prepared testimony in a number of other regulatory proceedings in the electricity and natural gas industries, as well as other regulatory actions involving firms in the media, consumer products and software industries. Pricing was a major issue in all of the regulatory proceedings and actions, and each involved a pricing analysis. Furthermore, I have prepared analyses in a number of litigation cases involving regulated industries, including telecommunications and energy.

I completed my Ph.D. in Economics in 1998 and my M.A. in Economics in 1996, both at the University of Minnesota. I received a B.A. in Urban Studies in 1987 and a Master of City Planning in 1988, both from the University of Pennsylvania.

II. Purpose of Testimony

PricewaterhouseCoopers LLP ("PwC") has been retained by Venable, LLP on behalf of the Association of Postal Commerce (“PostCom”) and the Mailing and Fulfillment Service Association (“MFSA”) (hereinafter, collectively “PostCom”) in connection with the omnibus rate case R2006-1, which was filed by The United States Postal Service ("Postal Service" or "USPS") with the Postal Rate Commission ("Commission")

I have been asked to examine the After Rates volume estimates prepared by witnesses Thress and Kiefer for parcels sent in the Standard Regular Mail subclass ("Standard Parcels").

My work was limited to the specific procedures and analysis described herein and was based only on the information made available to us through September 6, 2006. Accordingly, to the extent additional relevant information becomes available, I may amend or supplement my opinions as necessary.

This report has been prepared in connection with the above-referenced matter. It is to be used for the specific purposes of this matter and is not to be used for any other purpose without the express written consent of PwC. This report was prepared under the AICPA Standards of Consulting.

III. Introduction

In this testimony, I discuss the elasticity estimate the Postal Service uses for Standard Parcels. I also describe reasons that the estimate might be too low, as well as the implication a higher value of elasticity will have on the Postal Service's estimates of volume and revenue for Standard Parcels.

IV. The Elasticity Applied to Standard Parcels Is Likely Incorrect

There are several reasons to think that the elasticity the Postal Service uses to calculate After Rates volumes for Standard Parcels is not correct.[1] The Postal Service uses aggregated data to estimate the elasticity that applies to Standard Parcels, even though there are reasons to believe that the Standard Parcels category behaves differently from Standard Regular Mail letters or flats. The small volume of Standard Parcels relative to the subclass means that even if the elasticity for Standard Parcels is very different from the elasticity for Standard Regular, this difference will be obscured under the Postal Service's methodology. Furthermore, there is insufficient data to estimate the elasticity for Standard Parcels by itself.

[1] The current Standard Regular Mail subclass has two categories - letters and non- letters. Parcels are non-letters that pay a residual shape surcharge. Witness Kiefer's nomenclature regarding the current categories is slightly different. He refers to letters as "letters", to non-letters that do not pay the surcharge as "flats", and to non-letters paying the residual shape surcharge as "parcels". This testimony follows witness Kiefer's naming conventions for consistency, and for expositional clarity.

A. Aggregated Data

The current Standard Regular subclass includes the Standard Parcels category, along with Standard Letters and Standard Flats.[2] In the test year, Before Rates revenue associated with these categories are $425,914,667, $9,496,918,790, and $4,101,246,841, respectively, for a total of $14,024,080,297.[3] Thus, Standard Parcels represents approximately 3.0 percent of the subclass by revenue and 0.9 percent by volume in the Test Year. This is a very small percentage of the subclass.

Table 1 - Revenue and Volume for the Standard Regular Subclass by Category - Before Rates

Type	Revenue (millions)	Percent	Volume (millions)	Percent
Letters	$9,497	67.7%	48,958	78.2%
Flats	$4,101	29.2%	13,083	20.9%
Parcels	$426	3.0%	541	0.9%
TOTAL	$14,024	100.0%	62,581	100.0%

Source: USPS-T-36, WP-STDREG-21, "TYBR Commercial Revenues" and USPS-T-36, WP-STDREG-19, "TYBR Commercial Pieces & Pounds"

Witness Thress has estimated only one elasticity number for the entire Standard Regular subclass. He has done this by combining volume and price information for all elements of the Standard Regular subclass (letters, flats, and parcels) together.[4] Therefore, implicitly, Mr. Thress is assuming that Standard Parcels will react to a price

[2] As part of the rate case, the Postal Service is seeking to recategorize mail in the Standard Regular subclass so that there will be four categories; letters, flats, parcels, and hybrids. Since witness Thress calculates elasticities based on the existing categorization, it is appropriate to calculate revenue and volume percentages based on existing categories.

[3] USPS-T-36, WP-STDREG-21, "TYBR Commercial Revenues." There are minor adjustments to revenue for barcoding, FCM and Priority Mail rates which are not included in the calculation. These exclusions do not materially affect the results.

[4] "The own-price elasticity and the demand equation, those are done at the subclass level." Oral Cross examination of Witness Thress, Tr. 6/1286.

increase in the same way that a standard letter or standard flat will. Mr. Thress's estimate of the own-price elasticity of the Standard Regular subclass is -0.296.[5]

B. Standard Parcels Are Distinct from Standard Letters and Standard Flats

It is likely that letters, flats and parcels do not react equally to changes in prices. Instead, there are several reasons why the elasticity for parcels might be different from the elasticity for letters or flats.

1. Many Explanatory Variables of Standard Regular Volume Are Not Relevant to Standard Parcels

Witness Thress describes the factors that influence the volume of Standard Regular mail.[6] However, apart from the own-price, the factors are either not relevant for Standard Parcels, or act upon Standard Parcels differently from how they act upon Standard Regular.

- *Retail Sales* - Changes in retail sales may influence Standard Parcels volumes, but likely in a different way than they would influence Standard Letters or Standard Flats. Standard Letters, for example, is used for advertising and other inducements for people to purchase products. Standard Parcels, on the other hand, is more typically used to deliver products after a purchase has been made. There is no reason to expect the volumes of Standard Parcels and Standard Letters would change in reaction to a change in retail sales in the same way.
- *Difference in Price between a one-ounce First-Class workshared Letter and a one-ounce Standard Regular letter* - This factor is not likely relevant to parcel volumes.

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[5] Testimony of Thomas E. Thress, USPS-T-7, page 114.

[6] Testimony of Thomas E. Thress, USPS-T-7, pages 112-113. There are other explanatory variables listed, such as "seasonal variation" and "linear time trend," which likely apply to all subclasses of mail.

- *Percentage of Standard Regular mail for which First-Class cards rates are lower than Standard Regular rates* - This factor is not likely relevant to parcel volumes.
- *Dummy variable equal to one since the implementation of R97-1 (1999Q2) which set Standard Regular automation 5-digit letter rates below StandardECR basic letter rates* - This factor is not likely relevant to parcel volumes.
- *Current and one lag of the price of Standard Regular Mail.*

2. The Elasticity for Destination Entry Parcel Post Is Much Greater Than the Elasticity Used for Standard Parcels

Witness Thress estimates that the elasticity for "destination entry Parcel Post" is -1.399.[7] This is a much greater elasticity than the estimate used for Standard Parcels.

There are several reasons to consider Thress's "destination entry Parcel Post" as a proxy for Standard Parcels. Destination entry Parcel Post requires a minimum of 50 pieces, and is entered at a BMC, SCF, or DU. Standard Parcels also has a minimum shipment quantity, and the majority of Standard Parcels is entered at a BMC or a SCF.

According to witness Thress, destination entry Parcel Post "… could be thought of, then, as bulk Parcel Post".[8]

In addition, witness Kiefer points out that a separate rate design for Standard Parcels helps to "facilitate a long run merger of these parcels into a general parcel class".[9] This indicates that the Postal Service considers Standard parcels to be similar in many respects to Parcel Post.

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[7] Testimony of Thomas E. Thress, USPS-T-7, page 185.

[8] Testimony of Thomas E. Thress, USPS-T-7, page 167.

[9] Testimony of James M. Kiefer, USPS-T-36, page 17.

3. Standard Parcels Have Non-Postal Service Alternatives

Mailers have the option of shipping via a private carrier, such as UPS or FedEx.[10] Though these options are more expensive than Standard Parcels, these alternatives also offer certain advantages over Standard parcel, such as package tracking. An increase in the price of Standard Parcels decreases the difference in price between mailing via Standard Parcels and, for example, UPS. A mailer or a consumer previously indifferent between the Postal Service and UPS would be more likely to choose UPS if faced with the Postal Service's proposed rate increase in Standard Parcels.

C. Standard Parcels Elasticity Would Be Obscured by Standard Letters and Standard Flats

As shown in Table 1, letters and flats make up over 99 percent of Standard Regular volume, and consequently parcels is a small percentage of volume. This small percentage means that even a very large change in the volume of parcels in reaction to a price change is likely to be overshadowed by the change in volume of letters and flats, even if those changes are proportionally not as large.

This effect is illustrated in Table 2. As discussed above, witness Thress has estimated that Standard Regular mail has an elasticity of -0.296. Column AR1 shows the volume that would result from a 10 percent price increase if each category actually had an elasticity of -0.296. The volume in each category declines by 2.96 percent, and the overall change in volume (as measured by the TOTAL row) is also -2.96 percent.

Column AR2 shows the volume that would result from a 10 percent price increase if letters had an elasticity of -0.284, flats an elasticity of -0.296, and parcels an

[10] In addition, some shippers, such as those of CDs or DVDs, have the option of delivering electronically.

elasticity of -1.399. The changes in volume shown in column AR2 are different for letters and parcels from the changes shown in column AR1, but the subclass total is the same, and hence the subclass level elasticity is the same.

Table 2 - Parcels Elasticity Is Easily Obscured
Reaction to a 10 percent price change

Volume (millions)	BR	AR 1	AR 2
Letters	48,958	47,510	47,570
Flats	13,083	12,696	12,696
Parcels	541	525	465
TOTAL	62,581	60,731	60,731

Elasticity	BR	AR 1	AR 2
Letters		-0.296	-0.284
Flats		-0.296	-0.296
Parcels		-0.296	-1.399
TOTAL		-0.296	-0.296

This example demonstrates that the elasticity for parcels could be almost any value, and it would not be possible to know what the value is simply by examining the subclass level elasticity estimate. Consequently, it is not possible to rely on witness Thress's elasticity estimates of the Standard Regular subclass as a proxy for the appropriate elasticity of Standard Parcels.

D. It Is Likely Not Possible to Estimate the Elasticity of Standard Parcels

In addition, it is likely not possible to estimate the elasticity for Standard Parcels with the data currently available. As Mr. Thress says in his cross-examination, it is not possible to conduct a separate analysis if there is not enough data:

"Q: Could you have developed a specific elasticity for non-flat machineables or, for example, for standard parcels?

A Probably not. In order to estimate an elasticity, a price elasticity, you need to have a history of volume and prices and at some point the prices need to change, so obviously you can't estimate a price elasticity for a literally new category for which there is no price history at all. In the case of parcels there is some price history. I'm not aware that there's a sufficiently detailed volume history that would allow one to estimate that though, no."[11]

In addition, the record indicates that there are only limited data on Standard Parcels.[12]

V. The Volume Numbers Estimated by the Postal Service Are Likely Incorrect

The own-price elasticity measures the change in the volume of a good as the price of the good changes. If the elasticity is not correctly measured, then the prediction of volume based on that elasticity will not be correct either. More specifically, if the elasticity is too low, then the estimates of volume after a price increase will be too high. To examine the impact of a different elasticity, I have used a simple demand function, based on the demand function used in Witness Thress's testimony. The results of this analysis are presented in Table 3 below.

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[11] Oral cross examination of Witness Thress, Tr. 6/1288.

[12] Response of USPS to Interrogatories of Postcom (Postcom / USPS-T7-8, 11-12, 18), Redirected from Witness Thress. July 21, 2006.

Table 3 - Standard Parcels Volume, Revenue, and Cost Estimates Under Different Elasticity Assumptions

	BR	AR	AR
Comment	Postal Service's Predicted BR Volume and Revenue	Postal Service's Predicted AR Volume and Revenue	Volume and Revenue using destination-entry Parcel Post's Elasticity (-1.399)
Volume	507,255,662	448,594,236	276,116,751
Revenue	376,289,926	513,986,231	316,366,544
Cost	502,791,812	444,646,607	273,686,924
Contribution	-126,501,887	69,339,624	42,679,620

Note - Cost assumes unit cost of .9912 dollars per unit.
The use of this number is not an endorsement of its accuracy.

The Postal Service has predicted that Standard Parcel volume will decrease from the Before Rates level of 507,255,662 to an After Rates volume of 448,594,236 as a result of its proposed price increase for Standard Parcels mail. However, if the appropriate value of the elasticity is -1.399, then the After Rates volume will be 276,116,751 units. These results indicate that if the elasticity is -1.399, Standard Parcel volume will decrease by 231,138,911 units (or 46 percent) instead of the 58,661,426 units (or 12 percent) indicated in Witness Kiefer's testimony.