

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

RATE AND SERVICE CHANGES TO IMPLEMENT
BASELINE NEGOTIATED SERVICE AGREEMENT WITH
WASHINGTON MUTUAL BANK

Docket No. MC2006-3

**RESPONSES OF UNITED STATES POSTAL SERVICE
WITNESS AYUB TO INTERROGATORIES OF THE OFFICE OF CONSUMER
ADVOCATE (OCA/USPS-T1-29-31)
(July 12, 2006)**

The United States Postal Service hereby provides the responses of witness Ayub to the following interrogatories of the Office of Consumer Advocate: OCA/USPS-T1-29-31, filed on June 28, 2006. An objection to interrogatory OCA/USPS-T1-28 was filed on July 10, 2006.

Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

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July 12, 2006

**RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS AYUB TO
INTERROGATORY OF THE OCA**

OCA/USPS-T1-29. This interrogatory seeks information on the price elasticity for Washington Mutual Bank (WMB). Please refer to your response to OCA/USPS-T1-25(a)–(c).

- a. Please confirm that 100 percent of the incremental volume estimated for Years 1, 2, and 3 of the Washington Mutual NSA will be converted from Standard Mail to First-Class Mail. If you do not confirm, please explain.
- b. Because 100 percent of Washington Mutual’s incremental volume is derived from Standard Mail, please confirm that for purposes of estimating Q_0 , the own-price elasticity for First-Class Mail is irrelevant; i.e., the elasticity equals 0. If you do not confirm, please explain.
- c. Assuming the own-price elasticity for First-Class Mail is 0, the equation in your response should be written as follows:

$$Q_0 = Q_1 \cdot 1 \cdot \left(\frac{d_0}{d_d} \right)^{E_d} \quad \text{Equation 1}$$

If you do not confirm, please explain.

- d. Assuming the own-price elasticity for First-Class Mail is 0, please confirm that the “discount elasticity,” E_d , the only unknown, can then be solved as follows:

$$\ln Q_0 = \ln Q_1 + E_d \cdot \ln \left(\frac{d_0}{d_d} \right) \quad \text{Equation 2}$$

$$E_d = -0.8538$$

If you do not confirm, please explain, show all calculations, and provide citations to all sources used.

- e. Please confirm that this “discount elasticity,” E_d , can only be derived from the point volume estimates and average revenue specific to the Washington Mutual NSA, and therefore serves only to validate the point volume estimates that are inherent in the NSA as negotiated. If you do not confirm, please explain.
- f. Please confirm that this “discount elasticity,” E_d , does not represent an independent, *a priori* estimate of Washington Mutual’s elasticity of demand for Standard Mail with respect to a change in price of First-Class Mail. If you do not confirm, please explain.
- g. Please confirm that this “discount elasticity,” E_d , includes exogenous factors that would affect Washington Mutual’s volume response and, therefore, does not “assure that the additional mail volume is caused by the incentive to mail additional volume (because of the mailer’s demand characteristics), and not because of exogenous factors.” See PRC Op. MC2004-3, para. 3006, Opinion and Further Recommended Decision. If you don’t confirm, please explain.
- h. Assuming the own-price elasticity for Washington Mutual’s First-Class Mail is 0, please provide the “discount elasticity,” E_d , that excludes exogenous factors that would affect Washington Mutual’s volume response.
- i. Please provide a definition for “cross-price” elasticity, and give a citation to the source for your definition. Please compare and contrast your “discount elasticity” to the definition you cite.
- j. Please confirm that d_0 , the “before rates average marginal discount between First-Class Mail and Standard Mail,” of \$0.12 represents the difference between Washington Mutual’s First-Class marketing mail average revenue per piece of

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\$0.324 and its Standard Mail average revenue per piece of \$0.204. If you do not confirm, please explain.

RESPONSE:

- a. As noted in my testimony (at page 25, lines 16–17), I assumed that 100 percent of the growth in First-Class Mail resulted from conversion of Standard Mail for the purposes of estimating the financial value of the NSA.
- b. Although I assumed 100 percent of the growth in First-Class Mail resulted from conversion of Standard Mail for the purposes of estimating the financial value of the NSA, as stated in my response to part (a), it is highly unlikely that Washington Mutual's First-Class Mail volume has an own-price elasticity of demand equaling zero. See my response to OCA/USPS-T1-30.
- c. Confirmed that, if Washington Mutual's First-Class Mail volume had an own-price elasticity of demand equaling zero, the equation as written would apply.
- d. Confirmed that, if Washington Mutual's First-Class Mail volume had an own-price elasticity of demand equaling zero, the given equation could be solved as stated, within rounding.
- e. Confirmed, assuming that the question is asking if Washington Mutual's revealed preferences need to be taken into account when calculating their firm-specific elasticities.
- f. Confirmed, assuming that the question is asking if Washington Mutual's revealed preferences were taken into account when calculating this firm-specific elasticity.
- g. Not confirmed. Since the marginal price of Washington Mutual's First-Class Mail volume is the only change between the before-rates and after-rates scenarios presented, it seems safe to assume that "the additional volume is caused by the incentive to mail additional volume."
- h. Assuming that Washington Mutual's First-Class Mail volume had an own-price elasticity of demand equaling zero, the discount elasticity would be that posited in the equation in part (d) of this interrogatory.
- i. Cross-price elasticities, also called a cross elasticities of demand, "measure the percentage increase or decrease in the demand for a good in response to

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changes in the prices of other goods.” (Samuelson and Nordhaus, *Economics*, 13th ed., 1989, p. 429) Discount elasticities measure the percentage increase or decrease in the demand for a good in response to changes in differences between the price of that good and the prices of other goods. For more discussion of discount elasticities and their use in Postal Service demand modeling, see the testimony of Witness Thress (USPS-T-7) in R2006-1.

- j. Confirmed, within rounding, that d_0 represents the difference between Washington Mutual’s before-rates First-Class Mail marketing volume average revenue per piece and its Standard Mail average revenue per piece.

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OCA/USPS-T1-30. This interrogatory seeks information on the price elasticity for Washington Mutual Bank (WMB). Please refer to your response to OCA/USPS-T1-26. Please provide the different own-price elasticities for Washington Mutual's First-Class Mail used for acquisition, billing, and customer communications.

RESPONSE:

I have not computed own-price elasticities for the various types of mail Washington Mutual sends, but some inferences about their relative magnitudes can be made.

Billing mail has a very low own-price elasticity because of its non-discretionary nature, and because of content restrictions that require bills to be sent via First-Class Mail. Although customers can opt to receive their bills electronically, Washington Mutual does not provide an incentive to switch to electronic bill presentment, nor a disincentive to abandon mailed bills. As a result, the decision to receive bills through the mail is made by Washington Mutual's customers, in whose decision the price of postage receives little weight, presumably.

Because it also contains personal information, customer communications mail is also restricted to First-Class Mail. However, the own-price elasticity of this mail should be somewhat higher (in absolute value) than that of billing mail, because Washington Mutual has more discretion over how to disseminate this information. For instance, customer communication could be included in a bill or statement instead of being sent separately, or it could be delivered via telephone or e-mail in some cases.

In contrast to billing and customer communication mail, Washington Mutual has easy access to an alternative method for sending acquisition mail (Standard Mail), as well as marketing alternatives that bypass the mail stream entirely. Therefore, one would expect Washington Mutual's First-Class Mail acquisition volume to be more price-sensitive than billing or customer communication volume.

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OCA/USPS-T1-31. This interrogatory seeks information on the price elasticity for Washington Mutual Bank (WMB). Please refer to your response to OCA/USPS-T1-27. Also, please refer to Appendix A of your testimony.

- a. Refer to your response where it states, "In the WMB NSA, such a migration [between rate categories or subclasses] is an important part of the deal,...." With respect to Washington Mutual's incremental volume, please confirm that the migration of Standard Mail to First-Class Mail is the only relevant volume the Postal Service is willing to measure. If you do not confirm, please explain and quantify any other additional incremental volume to be generated by Washington Mutual, and identify its origin.
- b. Refer to Equation 2 in your response. Please confirm that the portion of Equation 2 that "eliminates the 'double counting' of contribution from Standard Mail that is converted to First-Class Mail," referred to as the "additional element," should be written as follows: $-(p_s - c_s) \times (Q_{s0} - Q_{s1})$. If you do not confirm, please explain.
- c. Refer to the "additional element," $-(p_s - c_s) \times (Q_{s0} - Q_{s1})$, in your response, and Appendix A of your testimony. Please show in Appendix A where you eliminate the "double counting" of contribution from Standard Mail that is converted to First-Class Mail for the Washington Mutual NSA.
- d. Refer to Appendix A, worksheet tab "USPS value," which gives the Year 1 Contribution from New Volume for Marketing Mail Letter - Converted Volume from Standard Mail of \$28,099,973. Please confirm that the \$28,099,973 in contribution has not eliminated all the "double counting" of contribution from Standard Mail that is converted to First-Class Mail (*i.e.*, with respect to the 51 million Standard Mail pieces discussed below). If you do not confirm, please explain, show all calculations, and provide citations to all sources used.
- e. Refer to Appendix A, worksheet tab "USPS value," which gives the Year 1 Contribution from New Volume for Marketing Mail Letter - Converted Volume from Standard Mail of \$28,099,973. Please confirm that the \$28,099,973 in contribution is based upon 263 million (593 million - 330 million) Standard Mail pieces converting to First-Class Mail. If you do not confirm, please explain, show all calculations, and provide citations to all sources used.
- f. Refer to Appendix A, worksheet tab "USPS value," which gives the Year 1 Contribution from New Volume for Marketing Mail Letter - Converted Volume from Standard Mail of \$28,099,973. Please confirm that the \$28,099,973 in contribution does not take into account the reduction in Standard Mail contribution from the loss of 51 million (314 million - 263 million) pieces of Standard Mail in Year 1 (After Rates). If you do not confirm, please explain, show all calculations, and provide citations to all sources used.

RESPONSE

OCA/USPS-T1-31

- a. The agreement with Washington Mutual is designed to induce conversion of marketing mail from Standard Mail to First-Class Mail. For the purpose of

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presenting a representative and easily understood analysis, my worksheet assumes that all of the First-Class Mail “produced” by the Washington Mutual NSA will have been converted from Standard Mail. In reality it is unlikely – and beyond incontrovertible proof – that there will not be other effects. For instance, with a lower marginal price for First-Class Mail letters, I fully expect that Washington Mutual will send some First-Class Mail that would not have otherwise been sent as Standard Mail. On the other hand, our agreement allows for Washington Mutual to send some Standard Mail, despite the fact that Washington Mutual’s expressed intent is to convert their marketing programs to First-Class Mail. The reasons for this are relatively straightforward; if Washington Mutual were to identify customer acquisition opportunities that were profitable using Standard Mail, but that were not at the still higher NSA First-Class Mail prices, it would be imprudent and ultimately detrimental to the interests of all postal customers to forestall such opportunities, thus my worksheets contain an assumption that Standard Mail will continue to be used up to the levels allowed by the contract. I would point out that these worksheets have been provided in electronic form so as to allow substitution of a wide range of alternative assumptions that would, of course, produce slightly different results.

- b. Confirmed.
- c. In my appendix, I did not attempt to conduct the Panzar test.
- d-f. Please see my response to part a.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

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