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

POSTAL RATE AND FEE CHANGES, 2000	Docket No. R2000–1

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS BERNSTEIN TO INTERROGATORIES OF
THE GREETING CARD ASSOCIATION
(GCA/USPS–T41–77 - 84)

The United States Postal Service hereby provides the responses of witness Bernstein to the following interrogatories of the Greeting Card Association: GCA/USPS–T41-77 - 84, filed on March 28, 2000.

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

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking

Eric P. Koetting

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260–1137
(202) 268–2992 Fax –5402
April 11, 2000

RESPONSES OF POSTAL SERVICE WITNESS BERNSTEIN
TO INTERROGATORIES OF GCA

GCA/USPS-T41-77. Please refer to your response to GCA/USPS-T41-35. C. You maintain that the record between R97-1 and R2000-1 shows that changes in elasticities do not lead to wide swings in postal prices, and that 90% of the price swings with Ramsey prices are due to changes in marginal cost.

a. To what extent (i.e., magnitudes) are the changes in prices between R97-1 and R2000-1 attenuated because you do not use pure Ramsey prices?

b. Are you saying that only 10% of the swings in your Ramsey prices are due to changes in demand elasticities? [That is, 100% minus the 90% due to changes in marginal cost]

c. If your answer to b. is in the negative, please explain what the correlation is between Ramsey prices and demand elasticities, both for your narrow range of price inelastic numbers and a wider band of elasticities from 0.3 to 3.0.

d. If your answer to b. is in the negative, please state and explain what assumptions you are making about changes in the shape or steepness of your cost curves.

RESPONSE:

a. I do not know. Neither the R97-1 nor the R2000-1 Ramsey prices were pure Ramsey prices.

b. Actually, the 0.9 (90%) figure cited in my response to GCA/USPS-T41-35 is the correlation between the percentage change in Ramsey price and percentage change in marginal cost. The correlation-squared, or about 81 percent (actually 81.9 percent), is the more accurate measure of the fraction of the variation in the price changes that is explainable by changes in marginal cost. Given this, I am not saying that the remaining 18.1 percent of the variation in price changes is explained by changes in demand elasticity. Other factors, such as changes in the net revenue requirement and changes in mail volumes also affect the Ramsey prices and will also explain some of the variation in the price changes. My point is simply that there is a close correlation between the price changes and the cost changes, and that cost changes are by far the dominant factor influencing price changes, with elasticity impacts and other considerations having much less influence.

c. The correlation between the percentage change in the Ramsey prices and the percentage change in the demand elasticities is 0.03. The correlation-squared is less than 0.001, which means that less than 0.1 percent of the variation in the Ramsey prices is due to variation in demand elasticities between the two rate cases.

With respect to your request that I calculate the correlation using a "wider band of elasticities from 0.3 to 3.0," I do not understand what you are asking me to do.

d. It seems to me that the shape of the cost curve has nothing to do with the correlation between marginal cost changes and Ramsey pricing changes. Correlation is a mathematical measure of the degree to which any two variables move together. The two variables I examined are the percentage change in the Ramsey price and the percentage change in the marginal costs that occurred from R97-1 to R2000-1.

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GCA/USPS-T41-78 Please refer to your response to GCA/USPS-T41-36. In this question, a sentence was inadvertently omitted from the end of part a. That sentence reads "If you so confirm, please assume in answering parts b. and d. below that individual consumers in general have different (cardinal) utility functions." The context of questions b. and d. may be clarified if you understand that we are asking whether you can assure us that in a situation where interpersonal comparisons of utility cannot in general be made, your net increase in consumer surplus represents a Pareto improvement, that no individual mailer is made worse off by the change to Ramsey prices, and at least one individual mailer is made better off.

RESPONSE:

I do not assert that no individual would be made worse off by the change to Ramsey prices.

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GCA/USPS-T41-79 Please refer to your response to GCA/USPS-T41-38. B.

a. With reference to your last sentence, are you saying that the Postal Service does not now use any demand information in recommending postal rates?

b. Are you saying that the Postal Rate Commission does not now use any demand information in setting postal rates in its O&RDs?

c. Would you agree that (i) the "changing market environment posited by the GAO" electronic diversion report implies substantial increases in substitutability for First Class letter mail, and (ii) in such circumstances, aggressive price competition in First Class letter mail is one possibly appropriate response by the Postal Service?

RESPONSE:

a. No.

b. No.

c. If some time in the future, First-Class mail became materially more price sensitive due to increases in substitutability with electronic alternatives, aggressive price competition (e.g., lower rates) would be an appropriate response, understanding that this is exactly the response that would occur under Ramsey pricing.

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GCA/USPS-T41-80 Please refer to your response to GCA/USPS-T41-39.

a. You refer to "relatively high own-price elasticities of demand" for priority mail and parcel post. Please confirm that your own price elasticity for priority mail puts it within the range of a price inelastic product, that is the absolute value is less than one. Please confirm that when the cross-price elasticity is factored in, that own price elasticity is offset somewhat.

b. Would you agree that the "demand information" the Postal Service needs to make correct investment and pricing decisions includes shifts in the demand curves for its products?

c. Would you agree that the Postal Service could use demand information (i.e., shifts in demand curves) to "make correct investment decisions" without resorting to the use of Ramsey prices?

d. Would you agree that the Postal Service could price more aggressively in First Class letter mail than it is doing (as a result of electronic diversion shifting the demand curve inward), and also could fund capital investments needed to compete for the growing e-commerce business (an upward shift in the demand curve) by raising the price of priority mail more than it is doing in this case?

e. Would you agree that the "relatively low price elasticity of demand for First-Class letters" along a demand curve does not answer the question about what price policy should be for First Class letters when the demand curve is shifting inward due to electronic diversion?

RESPONSE:

a. Confirmed, understanding that the price elasticity for Priority Mail is not mine. It is estimated by Dr. Musgrave and used by me in my analysis.

b. Confirmed.

c. I do not know how the Postal Service uses demand information or Ramsey price information in making its investment decisions. My point is that Ramsey prices provide information and more information is better than less when making decisions.

d. It is mathematically true that the Postal Service could lower First-Class letter rates and raise Priority Mail rates. The wisdom of such an approach depends on, among other things, the impact of lower prices for First-Class letters on the volume of First-Class letters and the impact of higher prices for Priority Mail on the volume of Priority Mail. The inelastic demand curve for letters implies that lower prices will not have much of an impact on letter volume. The relatively high own-price elasticity of Priority Mail, on the other hand, implies that higher prices for this product will substantially reduce volume. Shifts in the demand curve, if any such shifts have occurred, do not change this result.

e. First, the demand curve for First-Class letters is not shifting inward. Volume continues to grow. Second, and more important, your question confuses a shift in the demand curve with a change in the price sensitivity (elasticity) of the demand curve. If the demand is quite inelastic (as is the case with First-Class letters), price cuts will not have much impact on volume. This holds true whether the demand curve has shifted inward, outward, or not at all.

GCA/USPS-T41-81 Please refer to your response to GCA/USPS-T41-41 and also to Summary Table 3 on page 14.

a. Please confirm that your Ramsey prices in Summary Table 3 extract 2.6111 billion dollars in consumer surplus from those mailers that use the First Class letters mail product, which amount would not be extracted under the "R97-1 Index Price."

b. Please confirm that your Ramsey prices extract 1.7586 billion dollars in consumer surplus from those mailers that use the Periodicals regular mail product, which amount would not be extracted under the "R97-1 Index Price."

RESPONSE:

a and b. Confirmed.

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GCA/USPS-T41-82 Please refer to your response to GCA/USPS-T41-42. In interrogatory a., the word "purely" was inadvertently omitted as the modifier to "competitive". Please answer a. as correctly phrased.

RESPONSE:

In a purely (or perfectly) competitive environment, firms face an infinite demand elasticity for their product and, as a consequence, must price at marginal cost. Firms would not be able to engage in any pricing strategy that put price above marginal cost. For the record, however, Ramsey pricing with infinite demand elasticities would yield marginal cost pricing.

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GCA/USPS-T41-83 Please refer to your response to GCA/USPS-T41-44. With respect to question a., there are several competitors in the private market for air transportation and transportation by truck, and it can be reasonably assumed that the pricing structure for there is effectively competitive. If the Postal Service had economies of scale or scope in these arenas relative to purchased transportation, why would it spend billions of dollars on outside transportation as it now does? With respect to b., there are numerous competitors in the market for long haul and short haul transportation, and almost no barriers to entry. Under such conditions, the prices charged are likely to be fully competitive. Please confirm that Ramsey pricing under such circumstances would not make sense.

RESPONSE:

With respect to the first question, I do not know why the Postal Service spends billions of dollars on outside transportation. This is not my area of expertise. With respect to the second question, under the circumstances which you present, it is likely that the elasticity of demand for purchased transportation would be very high due to the competitive nature of the industry. Ramsey pricing with a very high elasticity leads to prices that are very close to marginal cost. This result makes perfect sense to me.

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GCA/USPS-T41-84. Please refer to your response to GCA/USPS-T41-46. While we are aware that your Ramsey prices are not pure Ramsey prices, the question concerns how much farther the Postal Service has moved in this case toward the pure Ramsey prices, relative to a situation where demand conditions were not at all factored into the rate setting process, and prices were purely cost based with equal percentage mark-ups. Please answer the question.

RESPONSE:

The question, as I understand it, is whether the Postal Service proposed rates in this case are closer to or further from equal percentage mark-up rates, as compared with rates proposed in the last case. However, I do not know what rates would result from applying equal percentage mark-ups in this case, or what rates would have resulted from such an approach in the previous case, so I cannot make this comparison.

DECLARATION

I, Peter Bernstein, declare under penalty of perjury that the foregoing answers are true and correct to the best of my knowledge, information and belief.

Peter Bernstein
(Signed)

7-10-00
(Date)

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.

Eric P. Koetting

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260–1137
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