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

APR 14 4 49 PM '00

POSTAL RATE COMMISSION OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

NOTICE OF THE UNITED STATES POSTAL SERVICE OF REVISIONS TO THE TESTIMONY OF WITNESS BERNSTEIN AND THE RESPONSE TO UPS/USPS-T41-6 -- ERRATA

The United States Postal Service hereby provides copies of a revised page 43 of USPS-T-41, as well as a revised response of witness Bernstein to UPS/USPS-T41-6. Preparing a response for today to a subsequent UPS interrogatory revealed the need to make these revisions. The original response to number 6 was filed on March 29th, and the attached new response replaces that version entirely. With respect to the testimony, the only change is a clarifying footnote added to page 43.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorney:

Eric P. Koetting

475 L'Enfant Plaza West, S.W. Washington, D.C. 20260–1137 (202) 268–2992 Fax –5402 April 14, 2000

# REVISED RESPONSE OF POSTAL SERVICE WITNESS BERNSTEIN TO UPS/USPS-T-41-6.

UPS/USPS-T41-6. Refer to your testimony on page 45, where you state, "Ultimately, the Ramsey prices of postal products are affected by cross-elasticities with nonpostal products only if the nonpostal firms are pricing above marginal cost."

- (a) Confirm that equation 8(a) on page 42 of your testimony refutes this statement in cases where the price set by nonpostal firms increases with the price of the postal product (i.e., where dP<sub>2</sub>/dP<sub>1</sub>>0).
- (b) Confirm that the price set by nonpostal firms can increase as the price of the postal product increases (so dP<sub>2</sub>/dP<sub>1</sub>>0) even when nonpostal firms set prices equal to their marginal costs of production.
- (c) If you do not confirm (a) and (b), provide a detailed explanation.

#### RESPONSE:

a. My testimony assumed that the nonpostal firm, like the Postal Service, had constant marginal costs in the relevant range of volume. In other words, if marginal costs are constant and the firm is pricing at marginal cost, then there will be no response by the nonpostal firm to a change in the postal price  $(dP_2/dP_1 = 0)$  because there is no change in the nonpostal firm's marginal cost.

If the nonpostal firm's marginal cost is not constant, as posited in UPS/USPS-T41-2, then changes in the nonpostal volume can lead to changes in the nonpostal marginal costs and changes in the nonpostal price  $(dP_2/dP_1 > 0)$ . In that case, the Ramsey pricing equation would include the terms  $E_{12}[dP_2/dP_1 \cdot P_1/P_2]$ , which would be non-zero if  $(dP_2/dP_1 > 0)$ . However, the impact of these additional terms on the Ramsey price of the postal product is still likely to be quite small. Specifically, this question suggests that  $dP_2/dP_1 > 0$  (meaning that the nonpostal firm changes its price in response to a change in the Postal Service price), but that the nonpostal firm's price change reflects a change in the nonpostal firm's marginal cost, so that the firm is still pricing at marginal cost. The change in the nonpostal firm's marginal cost must be driven by a change in the firm's volume, which in turn is due to the changes in its price

## REVISED RESPONSE OF POSTAL SERVICE WITNESS BERNSTEIN TO UPS/USPS-T-41-6.

and the price of the postal product. However, given that the nonpostal firm's price change is in the same direction as the postal product price change (e.g.,  $dP_2dP_1 > 0$ ), the overall impact on the nonpostal firm's volume may be rather small. For example, a fall in the price of the postal product would reduce the volume of the nonpostal firm (because of the cross-price effect), but the responding fall in the price of the nonpostal product will lead to an offsetting increase in nonpostal volume. Thus, volume changes will be small and, most likely, changes in marginal cost will be small as well. Since price changes are posited to follow marginal cost changes,  $dP_2dP_1$  will also be close to zero, yielding only a small impact on the Ramsey price of the postal product.

- b. Confirmed. A nonpostal firm could respond to an increase in the postal price by raising its own price while still at pricing at marginal cost. This could occur if the increase in the postal price leads to an increase in the nonpostal firm's volume (through a cross-price effect) and the increase in volume leads to an increase in marginal cost. In that case, the firm would increase its price to match the increase in marginal cost.
- c. Please see above.

#### 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.

(Signed)

4-14-00

(Date)

1 2 i 3 t 4 i 5 c 6

A first observation is that if the nonpostal firm is pricing at marginal cost, which includes a normal profit for the private competing firm, then the Ramsey equation reduces to the Inverse Elasticity Rule. Note that this condition requires that the response of the nonpostal firm to a change in postal prices (dP<sub>2</sub>/dP<sub>1</sub>) is zero, which it will be under conditions in which the nonpostal firm is operating in a market with marginal cost pricing.<sup>1</sup>

If cross-elasticities exist and the nonpostal firm is pricing above its marginal cost, then the Ramsey price with rivalry may differ from the Ramsey price in which rivalry is not considered. The direction of the departure depends critically on the response of the nonpostal firm to changes in the price of the postal product. Assume for the moment that the price of the nonpostal firm does not change in response to a change in the price of the postal product (i.e., $dP_2/dP_1 = 0$ ). In this case, the Ramsey price of the postal product with rivalry will be greater than when rivalry is not considered. This can be seen by re-writing the above equation with  $dP_2/dP_1$  equal to 0: (8b)

$$\left(\frac{P_1 - M_1}{P_1}\right) E_{11} + (1 - k) \left(\frac{P_2 - M_2}{P_2}\right) E_{21} \frac{R_2}{R_1} = -k$$

 $[(P_1 - M_1)/P_1]E_{11}$  is the familiar term from the Inverse Elasticity Rule (IER). The other term on the left-hand side of the equation has a positive sign since  $P_2$  is assumed greater than  $M_2$ , and  $E_{21}$  is assumed greater than zero. As a consequence, the Ramsey price of the postal product  $(P_1)$  will have to be higher than in the case without rivalry to offset the positive value of the other term and maintain equality with k.

The intuition of this result is that increases in the price of the postal product increase demand for the nonpostal product (because of the positive cross-elasticity effect) and with nonpostal price above marginal cost, this increase in demand increases the profits of the

<sup>&</sup>lt;sup>1</sup> This analysis assumes that the nonpostal firm, like the Postal Service, has essentially constant marginal cost in the relevant range of volume.

### **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 (202) 268–2992 Fax –5402 April 14, 2000