

BEFORE THE  
POSTAL RATE COMMISSION  
WASHINGTON, D.C.

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POSTAL RATE AND FEE CHANGES, 2000

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DOCKET NO. R2000-1

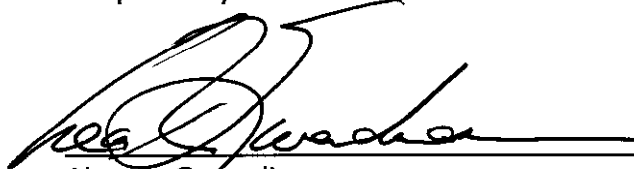
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THIRD INTERROGATORIES AND REQUEST FOR PRODUCTION  
OF DOCUMENTS FROM GREETING CARD ASSOCIATION TO  
UNITED STATES POSTAL SERVICE WITNESS PETER BERNSTEIN  
(GCA/USPS-T41-49 THROUGH 64)  
(MARCH 8, 2000)

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Pursuant to Section 20 of the Commission's Rules of Practice, Greeting Card Association ("GCA") hereby serves the following further interrogatories and request for production of documents directed to United States Postal Service witness Peter Bernstein: GCA/USPS-T41-49 through 64. GCA incorporates by reference the instructions in OCA interrogatories OCA/USPS-1-14 (January 24, 2000).

Respectfully submitted,



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GCA THIRD INTERROGATORIES TO  
USPS WITNESS BERNSTEIN (USPS-T-41)

GCA/USPS-T41-49            Please refer to Stiglitz, Economics of the Public Sector, second edition (1988) page 495. He states that "If elasticity of supply is infinite (a horizontal supply schedule), the tax should simply be inversely proportional to the compensated elasticity of demand."

- a.     Please confirm that you are assuming in your equations that the elasticity of supply is infinite (supply is perfectly elastic) and thus the reciprocal of supply elasticity equals zero.
- b.     Explain what would happen to the Ramsey prices if the supply curve is not perfectly elastic. How does it affect the deadweight loss or the consumer surplus?

GCA/USPS-T41-50

- a.     Please confirm that you are assuming in your testimony that each mailer has the same utility function. If you do not so confirm, please explain the assumptions you rely upon regarding variations in mailers' utility functions.
- b.     What happens to the Ramsey pricing if mailers have heterogeneous utility functions?

GCA/USPS-T41-51

- a.     Please confirm that in your calculations you used linear demand curves rather than non-linear ones.
- b.     What happens to the Ramsey prices and total consumer surplus if you use non-linear demand curves? Is it possible to improve on your Ramsey results?
- c.     Would your Ramsey results in terms of dead weight loss be improved by using non-linear demand curves? Please explain fully either a "yes" or "no" answer.

GCA/USPS-T41-52            Refer to Stiglitz (1988), page 495. He states that "In his analysis, Ramsey assumed that individuals were identical."

- a.     Are you assuming that all mailers' demand curves are identical for a class of mail?

GCA THIRD INTERROGATORIES TO  
USPS WITNESS BERNSTEIN (USPS-T-41)

- b. What would happen to the Ramsey prices and the total consumer surplus if this assumption is dropped?

GCA/USPS-T41-53 Refer to Stiglitz (1988), page 113. He states that "A compensated demand curve gives the demand for a commodity under the assumption that as its price rises, the individual is given sufficient additional income that his level of utility remains unchanged. If when the individual is given more income (compensated for the price increase), his demand for the commodity is unchanged, then the compensated and ordinary demand curves will exactly coincide." On page 261, Stiglitz further states that if an individual's demand does depend on income, compensated and ordinary demand curves "differ as a result of the "income effect" associated with taking away or giving income as compensation." Finally, at page 449, footnote 7, Stiglitz states that "In measuring the deadweight loss in an economy...we use the elasticity of the compensated market demand curve. The number can be estimated through statistical techniques."

- a. In your maximization of consumer surplus or minimization of deadweight loss associated with a change in prices to Ramsey prices, did you use compensated demand curves?
- b. (i) If your answer to part (a) is yes, then did you apply the Hausman methodology ( "Exact Consumer Surplus and Deadweight Loss", American Economic Review, Vol. 11, 1981, page 662-76) or another methodology to estimate elasticity of compensated demand? (ii) Please identify the methodology, if any, you used.
- c. (1) If your answer to part (a) and/or (b) (i) is "no", how reliable are the Ramsey prices you obtained in your testimony? (ii) What condition(s) may have to prevail in the postal market so that you could make the assumption that either the compensated demand curve and ordinary demand curves coincide or the effect on Ramsey prices is inconsequential if you use one demand curve rather than the other?

GCA/USPS-T41-54 Please confirm that optimal Ramsey pricing, like commodity taxation, entails that marginal excess burden per marginal dollar raised be the same for all products?

GCA/USPS-T41-55 Please refer to Stiglitz (1988) pp. 454-55. He derives the deadweight loss as a function of the square of the change in prices, a non-linearity. On page 495, he states that the prices (taxes) should be set "...so that excess burden increases as the revenue raised increases, but also so that each increment in revenue increases the excess burden more. This follows the fact that the deadweight loss increases with the square of the tax rate."

GCA THIRD INTERROGATORIES TO  
USPS WITNESS BERNSTEIN (USPS-T-41)

- a. In your formulation of Ramsey pricing, have you have taken account of this non-linearity in deadweight loss or consumer surplus gain and price change.
- b. If your answer is no., please then explain your answer fully, stating your reasons for considering your model superior.

GCA/USPS-T41-56 Please refer to the accompanying table, which reproduces Table 13 in your testimony in R2000-1 and Table 13 in your testimony in R97-1 (R97-1, USPS-T-31). Comparing the gains and losses in consumer surplus for each corresponding mail type we observe several shifts. For example, for Standard A Regular we observe a shift from a loss of consumer surplus of \$2,278.9 million in R97-1 to a gain of \$616.6 million in R2000-1.

Please confirm from the table in your R2000-1 testimony, that there are five such shifts where your conclusions about a gain from or a loss in consumer surplus in a mail category from Ramsey pricing are diametrically opposed to the conclusions you reached in R97-1.

- a. Please explain the reasons for such a shift.
- b. Would you consider it necessary for a regulatory commission, before it adopted Ramsey pricing, to have confidence that, under Ramsey pricing: (i) it knew -- on at least a qualitative basis -- where, as among customer classes, the resulting welfare gains and losses would fall, and (ii) such gains and losses would not be subject to shifts between one rate case and the next, such as those cited above? If your answer is not an unqualified "yes," please explain fully.

GCA/USPS-T41-57 Please explain in calculating Ramsey pricing, why you did not use the test year after-rate cost structure in order to be consistent with the proposed rates? Are you assuming that the TY cost structure remains the same before and after your Ramsey rates?

GCA/USPS-T41-58 Please refer to page 15, line 7 of your testimony. You state that "Volume variable cost per piece is essentially equal to marginal cost...." What do you mean by "essentially."?

GCA/USPS-T41-59 Please refer to page 15, line 15. You state "A price above marginal cost imposes a burden on consumers."

**Comparison of the Changes in the Consumer Surplus from Ramsey Pricing  
Between R2000-1 and R97-1**

Mail Product	testimony R2000-1 Change in Consumer Surplus (millions)	testimony R97-1 Change in Consumer Surplus (millions)	Change in the Sign of the Consumer Surplus
First-Class LFIPPs	(\$2,611.1)	(\$606.9)	
First-Class Cards	\$170.3	\$124.1	
Priority Mail	\$2,025.3	\$2,433.7	
Express Mail	\$132.1	\$173.1	
Periodicals In-County	(\$36.3)	(\$33.4)	
Periodicals Nonprofit	(\$149.4)	(\$146.4)	
Periodicals Classroom	(\$5.5)	(\$3.9)	
Periodicals Regular	(\$1,758.6)	(\$1,396.2)	
Standard Single Piece	N/A	(\$21.8)	
Standard A Regular	\$616.6	(\$2,278.9)	*****
Standard A ECR	\$3,075.5	\$3,030.8	
Standard A Nonprofit	\$107.4	(\$248.6)	*****
Standard A Nonprofit ECR	\$106.0	\$99.5	
Standard B Parcel Post	(\$32.7)	(\$99.3)	
Standard B Bound Printed Matter	(\$8.6)	\$21.7	*****
Standard B Special Rate	(\$133.9)	(\$86.0)	
Standard B Library	(\$9.8)	(\$7.7)	
Registered	(\$46.5)	(\$1.5)	
Insured	(\$69.4)	(\$25.2)	
Certified	(\$147.1)	\$143.0	*****
COD	(\$15.7)	(\$17.9)	
Return Receipts	\$32.0	N/A	
Money Orders	\$31.3	(\$29.2)	*****
<b>Total Change in Consumer Surplus</b>	<b>\$1,271.9</b>	<b>\$1,023.0</b>	

Source: Peter Bernstein R2000-1 T41 and R97-1 T31

GCA THIRD INTERROGATORIES TO  
USPS WITNESS BERNSTEIN (USPS-T-41)

- a. Is this statement is in general true whether we are in short-run or a long-run state?
- b. Are you assuming your Ramsey pricing is based on the long-run state?
- c. Are you assuming that all cost structures and elasticities are for a long-run state?

GCA/USPS-T41-60 Please refer to page 25, line 15 of your testimony. You state that "For example, a positive cross-price elasticity exists between First-Class cards and First-Class letters because an increase in the price of letters [...]would cause some mailers to substitute cards for letters."

- a. Please confirm that the 2003-2008 volume estimates in LR-I-179 show a divergence of First Class letter mail to electronic substitutes.
- b. Would such as opportunity for mailers to substitute electronic mail or instant messaging for First-Class letters also result in the existence of a cross-price elasticity? If your answer is not an unqualified "yes," please explain fully.
- c. On the assumption that you have answered "yes" to part b. would a decline in the price of electronic mail or instant messaging, other things being equal, lead to a decline in the volume of First-Class letters?
- d. On the assumption that you have answered "yes" to part c., would the long-run elasticities for First-Class mail reported in your LR-H-165 be too low? Please explain fully any negative answer.
- e. In principle, shouldn't high risk factors and high probability factors such as those found in LR-I-179 be incorporated into long-run elasticity estimates even-if the risk is a few years into the future?

GCA/USPS-T41-61 Please refer to page 23, line 18. You state "By the methodology of postal service costing, product volume variable cost is equal to product marginal cost multiplied by product volume. Therefore, marginal cost is equal to volume variable cost per piece, obtained by dividing product volume variable cost by product volume."

- a. Is this an economic approach or an accounting approach to costing?
- b. In your opinion, does it make a difference for Ramsey prices to be based on an accounting approach as opposed to an economic approach?

GCA THIRD INTERROGATORIES TO  
USPS WITNESS BERNSTEIN (USPS-T-41)

- c. Are you assuming either (i) that marginal cost is constant over all ranges of output or (ii) that the Postal Service is at the minimum point of its long-run average variable cost?

GCA/USPS-T41-62            Please refer to page 53, lines 12-13, of your testimony. On what basis do you assume that in the range of volumes being considered, volume variable cost per piece and thus, marginal cost is constant?

GCA/USPS-T41-63            Please refer to page 53 lines 13-16, of your testimony. You state "In fact, Postal Service analysis shows that the marginal costs at the after-rates volumes are slightly different. However, for simplicity and consistency this testimony uses before-rates marginal costs through out the analysis." Please provide Ramsey prices for the after-rates.

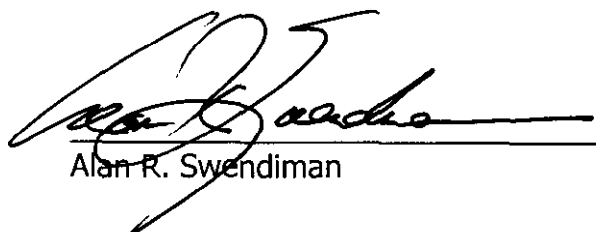
GCA/USPS-T41-64            For each postal function listed below does the supply curve exhibit: constant return to scale, decreasing return to scale, or increasing return to scale?

- Mail processing
- Delivery
- Collection
- Transportation
- Window Service
- Other Retail Services

For each answer provide the empirical studies which support it, indicating in each case whether the study is of academic (or otherwise independent) origin.

## **CERTIFICATE OF SERVICE**

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



Alan R. Swendiman