

BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, DC 20268-0001

Postal Rate and Fee Changes, 2005)

Docket No. R2005-1

INTERROGATORIES OF GREETING CARD ASSOCIATION
TO THE UNITED STATES POSTAL SERVICE
WITNESS THOMAS E. THRESS
(GCA/USPS-T7-1-11)
(May 12, 2005)

Pursuant to sections 25 and 26 of the Rules of Practice of the Postal Rate Commission, Greeting Card Association (GCA) directs the following interrogatories to the United States Postal Service Witness Thomas E. Thress.

Respectfully submitted,

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GCA/USPS-T7-1

Please refer to your testimony, USPS-T-7, p.22.

- a) In general in applied econometrics, do you agree that substituting one variable for another one may affect the estimated coefficients whether the variable is conceptually relevant or not, and even if it is highly significant statistically? If your answer is not an unequivocal “yes,” please explain.
- b) Please confirm that in the current rate case you replaced the income variable you used in R2001-1, with an employment variable.
- c) Please confirm that employment variable is used as a proxy for economic activity.
- d) Please explain the economic rationale for the substitution noted in b) above, in light of the fact that in prior testimony (R2000-1, USPS-T7, starting at page 92) you spent considerable effort justifying the income variable, for example, with reference to the permanent income hypothesis.
- e) Please state why you did not use GDP (or Industrial Production) as a proxy for economic activity instead of employment.
- f) Please explain whether the inclusion of GDP (or Industrial Production) could have resulted in a different effect on the coefficients.

GCA/USPS-T7-2

Please refer to your testimony, USPS-T-7, Section III., starting at p. 254. Please confirm that you have tested for the normality assumption that is required for the t-tests you have given for the coefficients to hold. If confirmed please provide the tests. If not confirmed, please conduct the tests and provide them.

GCA/USPS-T7-3

Please refer to your testimony USPS-T-7, Section III., starting at p. 254.

- a) Please confirm that it is a required condition in your regression analysis that variables be stationary.
- b) Please confirm that if variables are non-stationary, the results may be spurious.
- c) Please confirm that if the regression result is spurious, the estimated coefficients may not be correct.
- d) Please confirm that you have conducted the appropriate tests for the stationary character of the variables. If confirmed, please provide those tests. If not confirmed, please conduct the tests and provide the tests results.
- e) Please confirm you have corrected for the non-stationary character of the data if present. If confirmed, please explain how you accomplished that.

If not confirmed, then explain on what basis you conducted your regressions.

GCA/USPS-T7-4

Please refer to your testimony, USPS-T-7, Section III, starting at p. 254.

- a) Please confirm that one requirement for using regression is the absence of heteroscedasticity.
- b) Please confirm that the presence of heteroscedasticity would affect the coefficients and the test results.
- c) Please confirm that you have conducted the appropriate tests for heteroscedasticity. If confirmed, please provide the tests results. If not confirmed, please conduct the tests and provide them.
- d) In your opinion, have the estimated coefficients you have provided in your testimony been stable over the whole period of 1983-2004? State the full basis for your opinion if you confirm, or if you do not confirm, including current or prior tests done.

GCA/USPS-T7-5

- a) Please confirm that during the period of 1983-2004, there have been certain structural changes. If confirmed, please explain how you have accounted for all these changes.
- b) Please explain whether and how the structural changes can affect the coefficients (in other words the elasticities you have calculated).

GCA/USPS-T7-6

- a) Would you agree that many changes have occurred since 1995 which have affected FCLM? If your answer is not an unequivocal "yes," please explain.
- b) If many changes have occurred since 1995 that affect FCLM, please confirm that there must have been relatively more structural changes since 1995 than prior to 1995.
- c) Please state how you tested for such structural breaks. If you conducted these tests, please provide the results of those tests. If you have not conducted those tests, please conduct the appropriate tests and provide them. Specifically, please divide the sample data for FCLM into 1983Q1-1994Q4 and 1995Q1-2004Q4 and run your regressions for these two periods and provide the results, including estimated elasticities.
- d) After running the regression for the above two periods please examine and discuss the coefficients' stability.

GCA/USPS-T7-7

- a) Please confirm that, in order to preserve the power of the model, for example in the case of First Class single piece letter mail, one should include a variable which is the multiplication of a dummy variable representing post and pre-1995 by the SP price.
- b) Please confirm that the sum of resulting coefficient of this cross-multiplication variable and the coefficient of SP price, would be the SP own price elasticity for the period 1995-2004.
- c) Please conduct the above regression and provide the results.

GCA/USPS-T7-8

Please refer to your testimony, USPS-T-7, p. 57.

- a) Please explain the economic rationale for including a variable which is the cross multiplication of the employment variable and the time trend.
- b) Please explain whether the time trend variable included in this form in the regression model reflects the technological and other changes that may not have been captured by the other variables.
- c) Please confirm that the inclusion of this variable, whether it is economically relevant or not, can affect the size of other coefficients and/or their sign, as well as other test results.

GCA/USPS-T7-9

Please refer to your testimony, USPS-T-7, p. 254.

- a) Please confirm that you have used a log-log form model (in other words, a constant elasticity of substitution (CES) model) in estimating the elasticities.
- b) Please confirm that one does not necessarily have to use a CES functional form to estimate elasticities.
- c) Please confirm that you could have used a linear regression or other variable elasticity of substitution demand function to estimate the coefficients and then calculated different values of price and quantity to calculate point elasticities. Please confirm that this would provide you with a time series of elasticities that reflect changing structural conditions.

GCA/USPS-T7-10

Please refer to your testimony, USPS-T-7, p. 29.

- a) Please confirm that the ISP-Experience variable you constructed was on an ad-hoc basis.
- b) Please confirm that a different construct would have given different results and that the choice of this construct was made on the basis of whether it was generating a stronger statistical relationship with the quantity demanded.

GCA/USPS-T7-11

Please refer to your testimony, USPS-T-7, especially Section II. B., **and** the table showing the history of rate case own price elasticities for FCLM attached as a separate page and designated Exhibit A.

- a) On average over the history of those rate case elasticity calculations for FCLM, please explain why the higher postal rates have become, the more price inelastic the rate case CES demand curve has become?
- b) Do you agree that there is persuasive empirical evidence of (i) increasing use of the Internet as a competitive substitute for FCLM and (ii) increasing use of electronic payments as a competitive substitute for postal services? If your answer is not an unqualified “yes,” please explain how you would reconcile the history of increasingly inelastic rate case CES demand curves with such empirical evidence.
- c) How do you reconcile this history of increasingly inelastic rate case CES demand curves with the statement made at recent Senate committee hearings by PMG Potter to the contrary, viz. “Electronic diversion continues to erode First-Class Mail volume, this product will become more price-sensitive than ever. Higher rates will likely increase the pace of change, accelerating the volume decline, resulting in falling revenue....”

CERTIFICATE OF SERVICE

I hereby certify that I have this date served the foregoing document in accordance with sections 12, 25(a), and 26(a) of the Rules of Practice.

Alan R. Swendiman

May 12, 2005