

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

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POSTAL RATE AND FEE CHANGES, 1997

POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY
Docket No. R97-1

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS PANZAR TO INTERROGATORIES OF
UNITED PARCEL SERVICE
(UPS/USPS-T11-3-5)

The United States Postal Service hereby provides responses of witness Panzar to the following interrogatories of United Parcel Service: UPS/USPS-T11-3-5, filed on August 8, 1997.

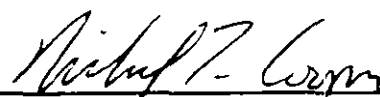
Each interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking


Richard T. Cooper

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August 22, 1997

RESPONSE OF POSTAL SERVICE WITNESS PANZAR TO UPS
INTERROGATORIES 3-5

USPS/USPS-T11-3. Please confirm that a subscript *i* is missing from the symbol ϵ at page 23, line 1, of your testimony.

ANSWER: Confirmed.

RESPONSE OF POSTAL SERVICE WITNESS PANZAR TO UPS
INTERROGATORIES 3-5

UPS/USPS-T11-4. In reference to the equations at page 23, lines 8 to 11, of your testimony, assume that cost components (or subcomponents) 1 and 2 have the same cost driver D_0 and that for matters of convenience the two cost components are being combined into a single cost component 0. Confirm that the volume variability ε_0 of cost component 0 is given by the following formula:

$$\varepsilon_0 = \frac{\varepsilon_1 G_1 + \varepsilon_2 G_2}{G_1 + G_2},$$

where ε_1 and ε_2 are the volume variabilities of cost components 1 and 2, respectively, and G_1 and G_2 are the respective component variable costs. Please explain any nonconfirmation of this result.

ANSWER: Not confirmed. The above formula correctly relates the *elasticity* of component 0 volume variable costs to the volume variable cost *elasticities* and variable cost levels of components 1 and 2 under the hypothesized circumstances. The correct relationship between the volume variable costs of component zero and components 1 and 2 is simply $V_0 = V_1 + V_2$.

RESPONSE OF POSTAL SERVICE WITNESS PANZAR TO UPS
INTERROGATORIES 3-5

UPS/USPS-T-11-5. In reference to the equations at page 23, lines 8 to 11, of your testimony, **assume** that the costs $C_0 = C_1 + C_2$ associated with cost components (or subcomponents) 1 and 2 are determined jointly, so that

$$C_0 = g_0 [\max(D_1, D_2)]^\epsilon$$

where D_1 and D_2 are the levels provided of some cost driver D that serves both cost components. Confirm that volume variability is ϵ_0 for the cost component utilizing the larger amount of the cost driver (i.e., cost component 1 if $D_1 > D_2$ and cost component 2 otherwise) and zero for the cost component using the smaller amount of the cost driver. Please explain any nonconfirmation of this result.

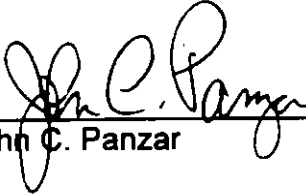
ANSWER: Not confirmed.

My direct testimony did not deal with cases in which component costs were a function of the level of two or more drivers. Extending the methodology to this case would result in a *component 0* volume variability of $V_0 = \epsilon_0 g_0 Z$, where $Z = \max(D_1, D_2)$. Note that, in this example, it is not meaningful to discuss component 1 volume variability independently of component 2 driver levels, and vice versa. (The statement of the interrogatory reveals as much.)

Thus the statement cannot be confirmed for two reasons. First, as in UPS/USPS-T11-4, it confuses ~~the level~~ of volume variable costs with their *elasticity*. Second, and more substantively, when component costs are interdependent, as in the hypothetical example, they should be treated jointly.

DECLARATION

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

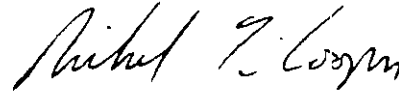


John C. Panzar

Dated: 8-22-97

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.



Richard T. Cooper

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