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

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

UNITED STATES POSTAL SERVICE INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS TO THE OFFICE OF THE CONSUMER ADVOCATE WITNESS SMITH (USPS/OCA–T4—49–51)

Pursuant to rules 25 through 27 of the Rules of Practice and procedure, the United States Postal Service directs the following interrogatories and requests for production of documents to the Office of the Consumer Advocate witness Smith: USPS/OCA–T4—49–51.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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June 23, 2000

USPS/OCA-T4-49. Please refer to your response to USPS/OCA-T4-20. Please also refer to the material you cite from Intriligator, Bodkin, and Hsiao's *Econometric Models, Techniques, and Applications*. As necessary, please assume that the variable z, defined in USPS/OCA-T4-20, is exogenous to the firm's decision process for the purpose of your answer.

a. Please confirm that, in the discussion of the cost curve you cite, Intriligator, Boskin, and Hsiao characterize the short run cost curve as an "alternative expansion path." If you do not confirm, please explain.

b. Please confirm that the material in Intriligator, Bodkin, and Hsiao that you cite implies that the (long- or short-run) cost function and the (long- or short-run) "expansion path" are conceptually identical. That is, in terms of the notation of USPS/OCA-T4-20, the cost function $c = f(y, w, x^*, z)$ represents either the short- or long-run (depending on whether there are "quasi-fixed" factors x^*) "expansion path." If you do not confirm, please explain.

c. Please confirm that the material in Intriligator, Bodkin, and Hsiao that you cite implies that the (long- or short-run) labor cost associated with the (long- or short-run) "expansion path" is, in terms of the notation of USPS/OCA-T4-20, given by $c_L = w \cdot h(y, w, x^*, z)$—i.e., the function $h(y, w, x^*, z)$ is defined to equal the derived demand for labor associated with the short- or long-run (depending on whether there are "quasi-fixed" factors x^*) cost function or "expansion path" $c = f(y, w, x^*, z)$. If you do not confirm, please explain.

d. Please confirm that, in the discussion of the cost curve you cite, Intriligator, Boskin, and Hsiao indicate that the short-run cost curve $C_S(y)$ and the long-

run cost curve $C(y)$ must satisfy the relationship $C_s(y) \geq C(y)$ at each level of output, given by *y*. If you do not confirm, please explain.

e. Please confirm that, given the notation in USPS/OCA-T4-20, the elasticity $\partial \ln c / \partial \ln y = \partial \ln f(y, w, x^*, z) / \partial \ln y$ measures the percentage change in short- or long-run (depending on whether there are "quasi-fixed" factors x^*) cost, moving along the cost function or "expansion path" $c = f(y, w, x^*, z)$, resulting from a percentage change in output. If you do not confirm, please explain.

f. Please confirm that, given the notation in USPS/OCA-T4-20, the elasticity $\partial \ln(w \cdot h(y, w, x^* z)) / \partial \ln y$ measures the percentage change in short-run or long-run (depending on whether there are "quasi-fixed" factors x^*) labor cost, consistent with moving along the associated cost function or "expansion path" $c = f(y, w, x^*, z)$, resulting from a percentage change in output. If you do not confirm, please explain.

USPS/OCA-T4-50. Please refer to your response to USPS/OCA-T4-21(c). Please also refer to the material provided as Attachment 1 to USPS/OCA-T4-50, which includes page 565 of *The Theory and Practice of Econometrics*, Second Edition, by Judge, et al. Please assume, if necessary, that the page is properly reproduced. Interrogatory USPS/OCA-T4-21(c) related to the conditions under which simultaneous equations estimators are needed, without reference to any particular variable or analysis. Please confirm that a simultaneous equations estimator (e.g., two-stage least squares) is not needed to consistently estimate the parameters of a regression equation for which the explanatory variables

consist entirely of exogenous and/or predetermined variables. If you do not confirm, please explain.

USPS/OCA-T4-51. Please refer to your response to USPS/OCA-T4-21(d). The interrogatory asked whether it was "your understanding that there is a time lag between the Postal Service's investment decisions and the availability of the related equipment for Postal Service operations." In your response, you state, "Based on information furnished by the Postal Service, it appears that the current level of capital is related to the current level of activity, though not necessarily on a 100 percent basis."

a. Please provide detailed citations to all "information furnished by the Postal Service" you used in formulating your response.
b. With respect to the original question, does the quoted statement from your response to USPS/OCA-T4-21(d) indicate that you do not believe that there is "a time lag between the Postal Service's investment decisions and the availability of the related equipment for Postal Service operations"? Please explain.

The Theory and Practice of Econometrics

Second Edition

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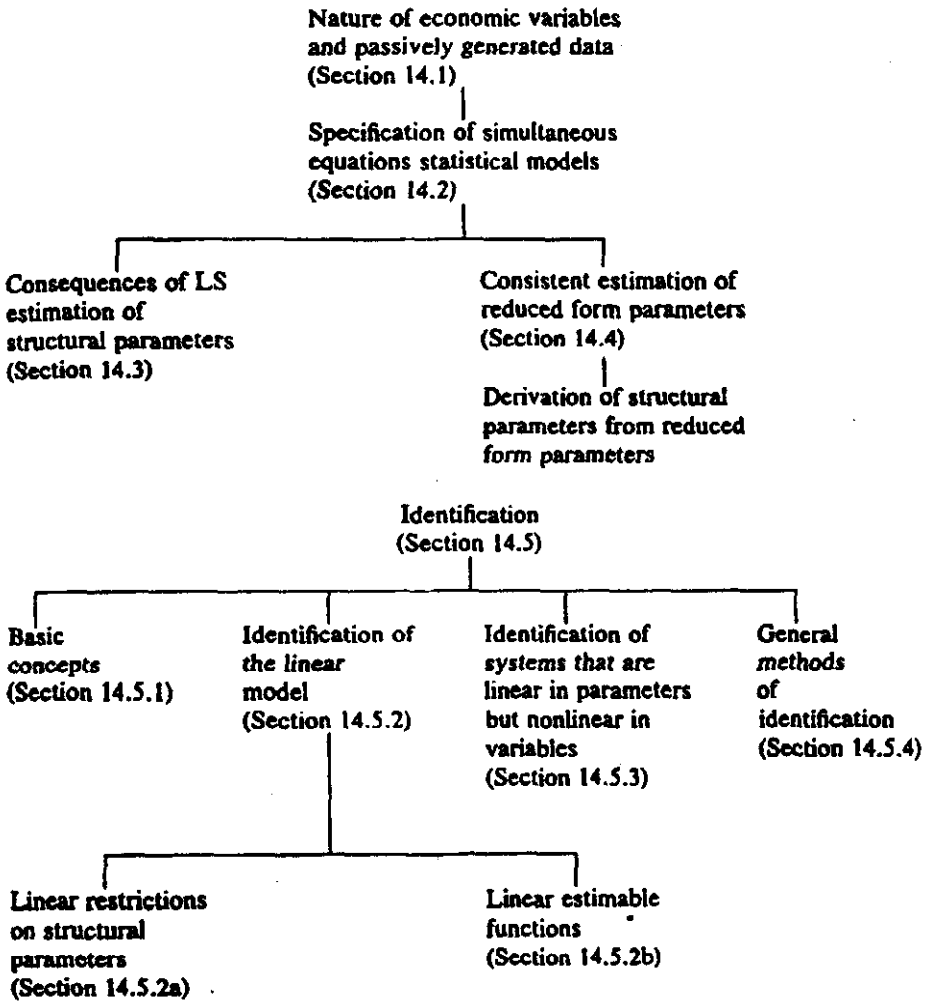
TABLE 14.1 ***SPECIFICATION AND IDENTIFICATION OF SIMULTANEOUS EQUATIONS MODELS***



endogenous variables may be placed in the same category as the exogenous variables since for the current period the observed values are predetermined. The exogenous variables and variables that may involve any length of lag are called *predetermined variables*. For statistical purposes the relevant distinction is between jointly dependent variables and predetermined variables.

The final classification of variables involves the nonobservable random errors, or, as they were called in the early simultaneous equation literature,

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.

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