Appendix 8W.1
Detailed Results for the Numerical Illustration in Section 8.4

Table A8W.1-1 contains estimates of the various 3×3 regional input coefficients matrices and their associated Leontief inverses that were generated by the selected regionalization techniques for Region 1 (North) that were explored in section 8.4. The results in Table 8.1 are based on these matrices; they are included here only for those interested in the details, since the column sums that are shown in Table 8.1 can smooth out individual cell-by-cell differences. Data are from the version of the Chinese 2000 MRIO data for three regions and three sectors shown in section 3.3.5 of Chapter 3. The national matrix is found by aggregating all of the three-region data. [Problem 8.9 asks you to find the same estimates for the other two regions—the South and the Rest of China—in the Chinese data.] Here

$$\mathbf{A}^n = \begin{bmatrix} 0.1311 & 0.1362 & 0.0352 \\ 0.1517 & 0.4605 & 0.2411 \\ 0.0429 & 0.0905 & 0.1290 \end{bmatrix}.$$

$$\mathbf{LQ}^r = \begin{bmatrix} 0.9330 & 1.0270 & 0.9930 \end{bmatrix}.$$

$$\mathbf{CIQ}^r = \begin{bmatrix} 0.9330 & 0.9085 & 0.9396 \\ 1.1007 & 1.0270 & 1.0342 \\ 1.0642 & 0.9669 & 0.9930 \end{bmatrix} \text{ (with } LQ_i^r \text{ on the main diagonal).}$$

For $\mathbf{FLQ}^r$, $\lambda^{*r} = [\log_2(1+(x^r/x^n))]^{0.3} = 0.7585$.

For $\mathbf{FLQA}^r$, since $LQ_1^r = 0.9330$, no adjustment is made for column 1; $LQ_2^r = 1.0270$, $\log_2(1+LQ_2^r)^{0.3} = 1.0193$; and since $LQ_3^r = 0.9930$, no adjustment is made for column 3.

For **RAS**, $\mathbf{x}^r = \begin{bmatrix} 16651 \\ 49563 \\ 15011 \end{bmatrix}$, $\mathbf{u}^r = \begin{bmatrix} 8442 \\ 23826 \\ 6403 \end{bmatrix}$ and $\mathbf{v}^r = \begin{bmatrix} 4814 \\ 28653 \\ 5204 \end{bmatrix}$

Table A8W.1-1 Intraregional Input Coefficients Matrices and Leontief Inverses for Region 1 (North) for Selected Estimation Techniques (China MRIO Data, 2000)

	Intraregional Input Coefficients	**Leontief Inverse**
Survey	$\begin{bmatrix} 0.1035 & 0.1273 & 0.0270 \\ 0.1430 & 0.3724 & 0.1990 \\ 0.0426 & 0.0783 & 0.1206 \end{bmatrix}$	$\begin{bmatrix} 1.1591 & 0.2466 & 0.0914 \\ 0.2901 & 1.7014 & 0.3939 \\ 0.0819 & 0.1635 & 1.1767 \end{bmatrix}$
Using $\mathbf{A}^n$		

LQ	$\begin{bmatrix} 0.1223 & 0.1270 & 0.0328 \\ 0.1517 & 0.4605 & 0.2411 \\ 0.0426 & 0.0899 & 0.1281 \end{bmatrix}$	$\begin{bmatrix} 1.1982 & 0.3037 & 0.1290 \\ 0.3806 & 2.0397 & 0.5783 \\ 0.0977 & 0.2250 & 1.2128 \end{bmatrix}$
CIQ	$\begin{bmatrix} 0.1223 & 0.1237 & 0.0330 \\ 0.1517 & 0.4605 & 0.2411 \\ 0.0429 & 0.0875 & 0.1281 \end{bmatrix}$	$\begin{bmatrix} 1.1966 & 0.2950 & 0.1269 \\ 0.3799 & 2.0344 & 0.5769 \\ 0.0970 & 0.2187 & 1.2110 \end{bmatrix}$
FLQ	$\begin{bmatrix} 0.0928 & 0.0938 & 0.0251 \\ 0.1267 & 0.3587 & 0.1891 \\ 0.0346 & 0.0664 & 0.0971 \end{bmatrix}$	$\begin{bmatrix} 1.1289 & 0.1722 & 0.0674 \\ 0.2410 & 1.6307 & 0.3483 \\ 0.0610 & 0.1265 & 1.1358 \end{bmatrix}$
FLQA	$\begin{bmatrix} 0.0928 & 0.0956 & 0.0251 \\ 0.1267 & 0.3657 & 0.1891 \\ 0.0346 & 0.0677 & 0.0971 \end{bmatrix}$	$\begin{bmatrix} 1.1297 & 0.1777 & 0.0686 \\ 0.2439 & 1.6509 & 0.3526 \\ 0.0616 & 0.1305 & 1.1366 \end{bmatrix}$
RPC	$\begin{bmatrix} 0.1184 & 0.1229 & 0.0317 \\ 0.1245 & 0.3779 & 0.1978 \\ 0.0399 & 0.0842 & 0.1200 \end{bmatrix}$	$\begin{bmatrix} 1.1732 & 0.2450 & 0.0974 \\ 0.2596 & 1.7120 & 0.3942 \\ 0.0780 & 0.1749 & 1.1785 \end{bmatrix}$
RAS	$\begin{bmatrix} 0.1204 & 0.1204 & 0.0314 \\ 0.1290 & 0.3770 & 0.1992 \\ 0.0397 & 0.0807 & 0.1160 \end{bmatrix}$	$\begin{bmatrix} 1.1763 & 0.2397 & 0.0958 \\ 0.2683 & 1.7082 & 0.3945 \\ 0.0773 & 0.1667 & 1.1716 \end{bmatrix}$
Using Round's $\mathbf{A}^r = \mathbf{A}^n \hat{\rho}^r$		
LQ	$\begin{bmatrix} 0.1245 & 0.1260 & 0.0322 \\ 0.1544 & 0.4568 & 0.2365 \\ 0.0433 & 0.0891 & 0.1256 \end{bmatrix}$	$\begin{bmatrix} 1.2011 & 0.2992 & 0.1251 \\ 0.3843 & 2.0223 & 0.5611 \\ 0.0987 & 0.2210 & 1.2071 \end{bmatrix}$
CIQ	$\begin{bmatrix} 0.1245 & 0.1227 & 0.0342 \\ 0.1544 & 0.4568 & 0.2365 \\ 0.0436 & 0.0868 & 0.1256 \end{bmatrix}$	$\begin{bmatrix} 1.1996 & 0.2907 & 0.1231 \\ 0.3835 & 2.0172 & 0.5598 \\ 0.0979 & 0.2147 & 1.2054 \end{bmatrix}$
FLQ	$\begin{bmatrix} 0.0944 & 0.0931 & 0.0246 \\ 0.1289 & 0.3559 & 0.1855 \\ 0.0352 & 0.0658 & 0.0953 \end{bmatrix}$	$\begin{bmatrix} 1.1310 & 0.1701 & 0.0656 \\ 0.2441 & 1.6224 & 0.3393 \\ 0.0618 & 0.1247 & 1.1326 \end{bmatrix}$
FLQA	$\begin{bmatrix} 0.0944 & 0.0949 & 0.0246 \\ 0.1289 & 0.3627 & 0.1855 \\ 0.0352 & 0.0671 & 0.0953 \end{bmatrix}$	$\begin{bmatrix} 1.1318 & 0.1755 & 0.0667 \\ 0.2471 & 1.6422 & 0.3435 \\ 0.0624 & 0.1286 & 1.1334 \end{bmatrix}$
RPC	$\begin{bmatrix} 0.1204 & 0.1219 & 0.0311 \\ 0.1267 & 0.3748 & 0.1940 \\ 0.0406 & 0.0835 & 0.1177 \end{bmatrix}$	$\begin{bmatrix} 1.1761 & 0.2420 & 0.0947 \\ 0.2628 & 1.7020 & 0.3836 \\ 0.0790 & 0.1722 & 1.1741 \end{bmatrix}$

RAS	$\begin{bmatrix} 0.1204 & 0.1204 & 0.0314 \\ 0.1290 & 0.3770 & 0.1992 \\ 0.0397 & 0.0807 & 0.1160 \end{bmatrix}$	$\begin{bmatrix} 1.1763 & 0.2397 & 0.0958 \\ 0.2683 & 1.7082 & 0.3945 \\ 0.0773 & 0.1667 & 1.1716 \end{bmatrix}$