

Appendix SA10.2 Detailed Results for the Numerical Illustration in Section 10.4

Table 10.2 in the text 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 (East) explored in section 10.4. The results in Table 10.2.1 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 10.1 can smooth out individual cell-by-cell differences. Data are from the version of the Chinese 2012 MRIO data for three regions and three sectors shown in section 3.4.6 of Chapter 3. The national matrix is found by aggregating all of the three-region data. Here

$$\mathbf{A}^n = \begin{bmatrix} 0.1580 & 0.0891 & 0.0375 \\ 0.1940 & 0.4892 & 0.2222 \\ 0.1061 & 0.1152 & 0.2585 \end{bmatrix}.$$

$$\mathbf{LQ}^r = [0.6814 \quad 1.0743 \quad 0.9752].$$

$$\mathbf{CIQ}^r = \begin{bmatrix} 0.6814 & 0.6343 & 0.6987 \\ 1.5766 & 1.0743 & 1.1016 \\ 1.4312 & 0.9077 & 0.9752 \end{bmatrix} \text{ (with } LQ_i^r \text{ on the main diagonal).}$$

$$\text{For } \mathbf{FLQ}^r, \lambda^{*r} = [\log_2(1 + (x^r / x^n))]^{0.3} = 0.9052.$$

For \mathbf{FLQA}^r , $LQ_1^r = 0.6814$, no adjustment is made for column 1; $LQ_2^r = 1.0743$, $\log_2(1 + LQ_2^r)^{0.3} = 1.0527$; and $LQ_3^r = 0.9752$, no adjustment is made for column 3.

$$\text{For RAS, } \mathbf{x}^r = \begin{bmatrix} 665 \\ 5,878 \\ 3,776 \end{bmatrix}, \mathbf{u}^r = \begin{bmatrix} 514 \\ 3,644 \\ 1,626 \end{bmatrix} \text{ and } \mathbf{v}^r = \begin{bmatrix} 277 \\ 3,771 \\ 1,737 \end{bmatrix}$$

Table A10.2.1 Intraregional Input Coefficients Matrices and Leontief Inverses for Region 1 for Selected Estimation Techniques (China MRIO Data, 2012)

| | Intraregional Input Coefficients | | | Leontief Inverse | | |
|----------------------|----------------------------------|--------|--------|------------------|--------|--------|
| Survey | 0.1321 | 0.0603 | 0.0191 | 1.1929 | 0.1513 | 0.0685 |
| | 0.1912 | 0.4775 | 0.1881 | 0.5157 | 2.0800 | 0.5368 |
| | 0.0928 | 0.1038 | 0.2528 | 0.2198 | 0.3077 | 1.4214 |
| Using \mathbf{A}^n | | | | | | |
| LQ | 0.1076 | 0.0607 | 0.0256 | 1.1649 | 0.1575 | 0.0866 |
| | 0.1940 | 0.4892 | 0.2222 | 0.5484 | 2.1686 | 0.6629 |
| | 0.1035 | 0.1123 | 0.2521 | 0.2435 | 0.3474 | 1.4486 |
| CIQ | 0.1076 | 0.0565 | 0.0262 | 1.1623 | 0.1458 | 0.0840 |
| | 0.1940 | 0.4892 | 0.2222 | 0.5464 | 2.1529 | 0.6586 |
| | 0.1061 | 0.1045 | 0.2521 | 0.2413 | 0.3216 | 1.4410 |
| FLQ | 0.0974 | 0.0512 | 0.0237 | 1.1430 | 0.1243 | 0.0708 |
| | 0.1940 | 0.4757 | 0.2215 | 0.5161 | 2.0677 | 0.6093 |
| | 0.1061 | 0.0946 | 0.2282 | 0.2204 | 0.2706 | 1.3801 |

| | | | | | | |
|-------------|--------|--------|--------|--------|--------|--------|
| <i>FLQA</i> | 0.0974 | 0.0539 | 0.0237 | 1.1627 | 0.1406 | 0.0761 |
| | 0.2769 | 0.5008 | 0.2215 | 0.7815 | 2.2193 | 0.6610 |
| | 0.1375 | 0.0996 | 0.2282 | 0.3079 | 0.3114 | 1.3945 |
| <i>RPC</i> | 0.1258 | 0.0710 | 0.0299 | 1.1911 | 0.1747 | 0.0954 |
| | 0.1808 | 0.4558 | 0.2070 | 0.4841 | 2.0173 | 0.5746 |
| | 0.1019 | 0.1105 | 0.2482 | 0.2326 | 0.3203 | 1.4275 |
| <i>RAS</i> | 0.1114 | 0.0597 | 0.0236 | 1.1669 | 0.1472 | 0.0746 |
| | 0.1958 | 0.4694 | 0.1998 | 0.5224 | 2.0613 | 0.5557 |
| | 0.1090 | 0.1124 | 0.2365 | 0.2435 | 0.3245 | 1.4023 |

Using Round's Adjustment with $\rho = [0.9877 \ 0.9903 \ 0.9780]$

| | | | | | | |
|-------------|--------|--------|--------|--------|--------|--------|
| <i>LQ</i> | 0.1063 | 0.0601 | 0.0250 | 1.1613 | 0.1533 | 0.0827 |
| | 0.1916 | 0.4845 | 0.2173 | 0.5311 | 2.1385 | 0.6343 |
| | 0.1022 | 0.1112 | 0.2465 | 0.2359 | 0.3365 | 1.4321 |
| <i>CIQ</i> | 0.1063 | 0.0560 | 0.0256 | 1.1588 | 0.1420 | 0.0804 |
| | 0.1916 | 0.4845 | 0.2173 | 0.5294 | 2.1238 | 0.6305 |
| | 0.1048 | 0.1035 | 0.2465 | 0.2339 | 0.3115 | 1.4250 |
| <i>FLQ</i> | 0.0962 | 0.0507 | 0.0232 | 1.1401 | 0.1212 | 0.0679 |
| | 0.1916 | 0.4711 | 0.2167 | 0.5009 | 2.0424 | 0.5846 |
| | 0.1048 | 0.0937 | 0.2232 | 0.2142 | 0.2627 | 1.3669 |
| <i>FLQA</i> | 0.0962 | 0.0533 | 0.0232 | 1.1588 | 0.1369 | 0.0728 |
| | 0.2735 | 0.4959 | 0.2167 | 0.7571 | 2.1878 | 0.6328 |
| | 0.1358 | 0.0986 | 0.2232 | 0.2987 | 0.3017 | 1.3803 |
| <i>RPC</i> | 0.1242 | 0.0703 | 0.0292 | 1.1870 | 0.1703 | 0.0913 |
| | 0.1785 | 0.4514 | 0.2024 | 0.4696 | 1.9928 | 0.5508 |
| | 0.1006 | 0.1095 | 0.2427 | 0.2256 | 0.3107 | 1.4122 |
| <i>RAS</i> | 0.1114 | 0.0597 | 0.0236 | 1.1669 | 0.1472 | 0.0746 |
| | 0.1958 | 0.4694 | 0.1998 | 0.5224 | 2.0613 | 0.5557 |
| | 0.1090 | 0.1124 | 0.2365 | 0.2435 | 0.3245 | 1.4023 |