

APPENDIX A

QGEN¹

The QGEN is a program to interpolate quarterly series from annual data. QGEN uses the method similar to that employed by Lisman and Sandee (Applied Statistics, Vol XIII, No 2, 1964). These methods are designed to be used when there is no related quarterly series serving as an index to determine the distribution factors. Both QGEN and Lisman and Sandee methods assume the the quarters $[y(t,i); i=1,..4]$ depend on three successive annual observations: namely, the current observation $[y(t)]$, the one-period lag observation $[y(t-1)]$, and the one-period lead observation $[y(t+1)]$.

Given these three successive annual observations $[y(t-1), y(t), y(t+1)]$, a curve is fitted through these points and the quarterly figures $[y(t,i)]$ are obtained from the area under the curve. While Lisman and Sandee employed a sine curve in the fitting of the curve, the QGEN uses a quadratic curve, hence the name Quadratic Passing Through Method.

It should be noted that the two annual observations at both ends (i.e., the first and the last observations) may not be interpolated into quarterly series in the same manner. This is because they do not have the three successive annual data required for the interpolation. However, in the absence of additional information, it may be assumed that the curve pertaining to the first

¹QGEN is the program constructed by Gosah Araya, Faculty of Economics, Thammasat University.

and the last observations is the same as that of the second and the next to last observations respectively, then these first and last year observations can be interpolated. But the result may not be consistent with the rest of the interpolated data.

To use QGEN program, simply type QGEN at the DOS prompt sign and follow the instruction on the screen.

QGEN can take the data from the keyboard and from the micro TSP databank file (files with .db as an extension). The latter must not have any additional label other than that which comes with the STORE command.

Output from QGEN can be sent to a printer for a hard copy or shown on the screen for inspection; it can also be saved as a micro TSP databank file which can be used later in the micro TSP operation.