Flexible Consumption Coefficients and the Augmented Input Output Model

Topic: Input-Output Analysis under Fuzziness, Uncertainty, and Bootstrapping Author: Mousumi Pal

An augmented Input output model with n production sectors and k household sectors had been tried for India (Ghosh and Sen Gupta, 1979) to understand and project the multiplier effects induced by household consumption on income (and income distribution also among the k household classes) along with multiplier effects generated by indirect output requirement (usually identified as Leontief multiplier effect). However, this very notion of augmented I-O model with endogenous household sectors essentially based on the critical assumption of fixed sectoral (production) consumption coefficients of the household sectors required for expanding the I-O model endogenising the household sectors is questioned. Even in the relatively short period, Engel's Law suggests that as income increases household consumption increases less than proportionately. The crucial feature of Input Output Model, namely, the assumption of fixed production coefficients rules out the possibility of any input substitution and though it does not entirely conform to reality but in the short period this does not seem to result in significant error in projection. But the assumption of sectoral consumption coefficient does not only disallow inter sectoral consumption substitution, it also requires no scope of substitution between consumption and saving. So, taking note of the above, this paper (exercise) attempts to incorporate some built in mechanism in the expanded I-O model and this is supposed to take care of the possibility of changing sectoral consumption coefficients for the household sectors. Some working paper focusing the above was prepared (Ghosh and Sen Gupta, 1994). This exercise tries to improve upon the above and demonstrates the relative flexibility of the I-O model and the way the adjustment rules may be incorporated into the system to allow for the changing coefficients.