

Endogenisation of Inventory Investment and Generalisation of Mahalanobis Model of Growth*

Shri Prakash and Shalini Singh**

Mahalanobis model of development planning has decisively influenced the strategy of growth of Indian economy for a pretty long time. Naturally, the model has been examined critically from time to time. The model assigns pivotal role to investment in capital/producer goods for achieving accelerated growth. The model envisages consumer goods sectors, particularly the household industries, to generate employment opportunities. But the model assumes implicitly as if investment in productive capacity alone determines growth. It totally neglects the working capital/inventory needed for the operationalisation of installed capacity. Consequently, Mahalanobis growth profiles over-estimate the growth effects of investment. The extension and modification of Mahalanobis model, attempted in the study, incorporates inventories into the model as endogenous variables to generalize it. The generalised model shows mathematically, theoretically and empirically that the inventory investment lowers growth, while disinvestment in inventories considerably accelerates growth. Solution of two sector Mahalanobis model with Indian data generates highly exaggerated growth performance. The generalised model almost approximates the actual growth performance of the Indian economy, lending empirical support to the thesis of inverse relationship between the size and accumulation of inventory capital and growth.

Growth Effects of Investment

Theory of growth subsumes cyclical fluctuations in secular rise of income/output and investment. This synthesis swamps the independent identity of trade cycles theory. Then, the modern growth models treat investment and stock of capital as the pivots of growth. Neo-Keynesians, the pioneers of growth models, however, distinguish between the twin effects of investment: investment generates (a) incremental income and employment, and (b) additional capacity. The twin growth effects of investment are implicitly assumed to synchronise in time and space. However, both logically and empirically, capacity creation precedes income and employment generation. Both capacity creation and production involve time-lags which differ between sectors. The two fold time-lags involved in the capacity creation and production make the twin effects of investment operate sequentially rather than simultaneously. The fructification of these effects requires time after investment has been made (Prakash, 1982, 1986, 1991a).

* Revised and updated version of the paper presented at the Twenty Third International Conference on Macro-Modelling of Development of countries in Transition. University of Lodz, Poland.

** Authors are associated respectively with University Grants Commission, 35, Feroz Shah Road, New Delhi, and Institute of Business Management and Fashion Technology, behind Sharma Inter College, Bulandshahr.