DISSERTATION ABSTRACT

The author Constructs a model of the 'dual' economy in a descriptive–cum-planning framework, built on those of Dobb [1960], Sen [1960], Marglin [1966], Dixit [1968], etc. However, here some important modifications of these D-S-M-D type of models are introduced. Firstly, the author questions the very mechanism of the automatic growth in D-S-M-D type of models, which is possible by the fixity of the real wage-rate and then he, unlike above writers, wishes to acknowledge the possible impacts of the advanced–sector-growth on the backward sector.

Main objective here is that the State authority of the controlled advanced sector should adopt such a price policy that will expand employment in the advanced sector at a rapid rate. Incidentally, choice of investment allocation between the two sectors is here determined through the ~~via~~ price policy. To this aim, the author formulates the Problem in a basic model. In its descriptive part, after he highlights the distinguishing features of the model, he particularly discusses the conditions of the steady and balanced growth.

Because of the existence of the demand constraint in the model, it has been shown that the unique limiting capital-stock ratio for the maximum surplus (in the advanced sector) at every point is lower than that for the maximum balanced growth. Since in this model, there exists an 'employment' bottleneck (in the advanced sector) consisting of 'capital–goods' bottleneck in the fore-front and the 'wage-good' bottleneck in the background, a target stock of capital only need to be set.

In the policy aspect the author, therefore, alternatively wishes to reach a targeted capital–stock for both the sectors together in minimum time, which is equivalent to reach the maximum amount of total capital-stock over a fixed time horizon. 'Turnpike Theorem' leads to believe that such paths would approximate the maximal balanced growth path.

This Model, compared to Dixit [1969], Hornby [1968], etc. is much more general in the sense that here both the level of investment and its allocation are simultaneously determined. Taking this complication into account, the author firstly poses the basic inter-temporal problem in a dynamic framework of achieving maximum returns (in terms of total capital investment) subject to the appropriate constraints. Then the problem is solved by using Bellman's 'Optimality Principle'. The optimal solution of the model is here characterized in terms of the allocation parameter, which equivalently is in terms of the price variable.

As to the implication of the solution, it is the specialization of capital-investment exclusively in the backward sector which is urgent for the initial periods of the planning horizon when level of capital stock in this sector is relatively low than that in the advanced sector. This investment of heavy dose in the backward sector will either reduce 'wage-good' bottleneck to a great extent or eliminate it completely. If it is completely eliminated, all the capital-stocks will afterwards be allocated exclusively in the advanced sector for reducing 'capital-goods'

bottleneck. Otherwise, it will be allocated jointly in both the sectors. Proportion of allocation in the two sectors will, again, depend on the degree of bottlenecks of both the types.

The rationale for not choosing maximum possible employment (through the allocation of all the investible resources in the advanced sector only) at the very beginning is, however, same as it is in D-S-M-D models. The common rationale is that today's capital investment in the backward sector that helps to generate wage-good in larger amount acts as the most important pre-requisite for the feasibility of tomorrow's employment (and hence capital accumulation) in the advanced sector.