

A CONSISTENCY MODEL OF REGIONAL GROWTH *

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Introduction

Once the sectoral growth-rates of the economy are outlined by the Central Planning Authorities, the problem that follows is how to break them up for the different regions. Such problems can be tackled both in a consistent framework and in an optimization scheme. We propose to construct a consistency model only. We include in it both inter-sectoral consistency and inter-regional consistency.

Inter-sectoral consistency is studied by Leontief type of production function. It is therefore essential that one should construct separate input coefficient matrices for the various regions under consideration. It is also necessary that in an inter-regional model one should treat domestic consumption as endogenous. An endogenous relation is preferable because it takes into consideration the effect of output levels on employment and then on population changes. Thus we can get a clear idea of the regional domestic consumption levels. It is proposed to treat the level of investment as endogenous and the Government consumption exogenous.

We propose to use gravity type of relation for inter-regional trade. This means that the volume of trade between a pair of regions depends essentially on the relative magnitudes of supply and demand for different commodities in the different regions. The volume of trade between any pair of regions will tend to be directly proportional simultaneously to the output of the supplying region and the requirement of the destination region, while inversely proportional to the

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