

'TRANSPORT COEFFICIENTS' AND 'TRANSPORT INPUT-VECTOR' (GOODS TRANSPORTATION—RAILWAYS)

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1. *Introduction*

In the scheme of inter-sectoral balance of economic activities (the inter-industry flow matrix), inter-spatial balance is assumed to be achieved by taking transport as one of the sectors and expressing the demand for it by other sectors as a fixed proportion of their outputs. While fixed input coefficients, where the inputs are from sectors other than transport, imply a given technique of production, fixed input coefficients, when inputs relate to transport sector, imply the assumption of a given and unchanging pattern of location and commodity flows over space. When a decision is taken, for example, to produce more of a certain sector, say steel, either by increasing the level of production at one of the existing production locations or by creating a new plant, we may well say that according to the technical coefficients (obtained empirically), production of a ton of steel will require a_1 tons of coal and coke and a_2 tons of iron ore wherever the plant is located (i.e. the assumption of fixed input co-efficients). But the same cannot be said of transportation. By taking such a decision, we are already disturbing the present locational pattern of the economy, and the transport need of the steel sector as well as of all those sectors which supply inputs to steel industry depends on where we locate this new production. The demand for transportation becomes a variable depending upon the spatial flow pattern which is not pre-determined. Thus, for the purposes of future planning, the assumption of a given technique of production is a rough approximation of the reality, while the other assumption is just a distortion of it.

Hence, the transport demand is to be associated with the flow of goods from one region to another (X_{i,r^s} , i.e. flow of commodity i from region r to s), while the other inputs are associated with the pro-