

## IMPACT OF HIKE IN PRICES OF COAL & PETROLIUM PRODUCTS ON THE OTHER SECTORS OF THE ECONOMY—AN APPLICATION OF INPUT-OUTPUT TECHNIQUE

C. RANGARAJAN,  
RAAJ KUMAR SAH AND  
K. S. REDDY

When the price of a commodity increases, it has an impact on the prices of other commodities through the inter-industry dynamics. Earlier studies in this field have attempted to trace, for example the effect of an increase in indirect taxes on certain commodities on the prices of the non-taxed commodities through the use of input-output table. The underlying assumption of all these studies is that the price of a commodity increases when prices of the inputs that go into the production of a commodity increase. In this paper we have attempted to present a methodology by which the impact of the increase in the price of one commodity on others can be calculated under a situation where the prices of specific commodities are not allowed to rise even though input prices go up.

### *Methodology of Investigation*

It is well-known that Leontief input-output table can be converted into a set of price equations.<sup>1</sup> The prices of the various sectors in the base year can be broken down into various components as follows :

$$I = \sum_{i=1}^n A_{ij} + V_j \quad (1)$$

where  $A_{ij}$  = Re. of commodity  $i$  required per  
Re. of commodity  $j$ .

$V_j$  = Re. of value added per Re. of commodity  $j$ .

$n$  = number of sectors in the economy  
each identifiable by a commodity

$A = (A_{ij}) \quad i = \bar{1}, n, \quad \bar{j} = \bar{1}, n$

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1. Leontief W., *Input-Output Economics*, New York University Press, 1966, pp. 142-145.