

ing plant with higher ratings before they have had operational experience of plant with lower ratings.) The fall in turbine cost per megawatt is associated with a reduction in the real resources required; excess capacity, in terms of skilled men as well as equipment, can be prevented only by a sufficiently great increase in the volume of orders.

The fact that the investment plans of the independent manufacturers are not co-ordinated can also result in excess capacity. This has happened, notably, in transformer production, where the number of firms concerned is relatively large. Given fairly large numbers, there is nothing to ensure that each firm, in the hope of realising scale economies, does not count on enlarging its share of the market, with the inevitable result that total capacity becomes excessive. This tendency, I have argued elsewhere¹ is endemic in precisely those markets with large numbers of producers acting independently that often feature as the textbook ideal.

(v) We have already noted, in the case of turbines, that the industry's product is subject to continuous change. The same may be said of switchgear and transformers, which have to be adapted to deal with higher voltages. As a result, the firms concerned deploy large resources in research, development and design. There is some inter-firm co-operation in this field, particularly in the development of certain kinds of switchgear, but the Generating Board took the view that there ought to be more of it.² This is an important matter lying, for the most part, outside the scope of this article; its relevance to pricing will be discussed later.

(vi) Finally, we must bear in mind the export trade, which represents a significant, but diminishing, proportion of the total sales of the equipment with which we are concerned. In 1965 exports of heavy electrical equipment represented about 16.5 per cent of the value of home deliveries, which were some £100 million in value. In 1961, the value of exports was almost one-third of home deliveries. I am concerned in this paper with the pricing of equipment sold at home to the electricity authorities, but it will be necessary to consider whether this has any bearing on the exports that firms are able to make.

3. *The Criteria of an Efficient System of Pricing.*

How are we to assess the relative merits of the alternative ways in which the prices of heavy electrical equipment may be determined? Let me now endeavour to set out, very briefly, the criteria that I shall apply.

First, and most obviously, the procedure adopted should be such as sets prices at levels that are appropriate relative to demand and cost conditions. Appropriateness, in this sense, has two aspects. It would be generally agreed the rate of profit in this line of production, taking one year with another, should neither exceed nor fall short of the rate in other industries subject to an equivalent degree of risk. Considerations of equity might be regarded as sufficient justification of this equality, but the economist sees it as a condition for the proper allocation of resources in different employments. We have to consider, that is to say, whether the prices set are likely to cause the right amount of productive capacity to be installed and to ensure that the right amount of output is being produced from this capacity.

¹ *Information and Investment*, Oxford University Press, 1960.

² Report from the Select Committee, pp. 167-8.