

(ii) Of key significance for our analysis is the fact that the total home demand for each category of equipment is in effect totally inelastic with respect to price. This is certainly the case in the short run, as it is unlikely that the electricity authorities would alter their construction programmes in response to fluctuations in the price of this equipment. In the longer run, the price of the equipment, by influencing the cost of these programmes, might affect their scale, but the circumstance will have no bearing on the price that a manufacturer quotes for a particular order at a particular time. Although the total demand for each type of equipment is inelastic, however, the demand for that offered by any single seller will be highly sensitive to the level of his price compared to those of rivals. This very high cross-elasticity is the result of the fact that each item of equipment is produced by the different manufacturers to the same specifications, as laid down by the buyer.

(iii) Of related significance is the size of individual orders. Either because of the scale of particular items of equipment (as with turbines) or because of the inclusion of several items in one order (as with transformers), success or failure in obtaining a particular contract may have a very large effect on the total business obtained by a firm within a year. In the case of turbines, there are only about two orders, on average, per year, worth (in 1965) some £20 million each. A single order for transformers may represent a quarter of a firm's annual turnover in this equipment. The business in switchgear is in effect allocated in bulk by the Generating Board, rather than split up and put out to tender; but it is safe to say that were competitive tendering to be introduced, the size of an individual order could be very large.

(iv) Excess capacity, from time to time, is inevitable in this industry. There are several reasons for this. It is obvious, first, that if productive capacity is to be sufficient to meet the electricity authorities' demands when these are at their peak, then it will necessarily exceed them at other times. The demand for each type of equipment is on a steadily rising trend, but subject to fluctuation. The 'stop-go' policies, so much discussed in recent years, have a clear enough impact on this industry, in that they give rise to sudden modifications in the electricity investment programme. A greater stabilisation of public investment would permit a better adjustment of capacity to demand, though imbalances would never be wholly prevented. Export orders may help to fill the gap left by the falling off of home demand for a particular category of equipment, but they cannot be depended upon to become available in sufficient quantity at remunerative prices.

Excess capacity may also arise through technical advance. In the case of turbines, which form the heart of a generating plant, recent improvements have been very striking. Increases in the size of the turbine and devices that enable it to deal with higher steam temperatures and pressures have markedly reduced cost per kilowatt. The first 30 megawatts set was installed in 1930; by 1956 a 100-MW set had been commissioned and orders for 120-MW, 200-MW and 275-MW sets had been placed. The first 500-MW set was ordered in 1960. The cost per megawatt of turbine plant over these thirty years fell by more than half. (The rate of progress has been so rapid, in fact, that firms find themselves design-