

Economies of Scale, Distribution of Industry and Programming

A Rejoinder

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Jagdish Bhagwati ("Economies of Scale, Distribution of Industry and Programming The Economic Weekly, September 1, 1962) poses certain problems relating to the technical and the political processes of planning in India, which need deeper analysis than attempted by him.

Bhagwati's criticism is that licences for industries are given without taking note of various economies, like those of scale or of spacing, and the solution he presents is to work out national industrial targets into economic project reports according to which Industrial plants would be set up.

There is an implied assumption in Jagdish Bhagwati's argument — that there is a technically fixed optimum Location and scale for each Industry (vide his examples of cars, refrigerators, paper and so on). In fact, there are two fallacies here.

Firstly, the manufacture of none of these products can be said to constitute a separate "industry".

Secondly, scale or location are not technically "fixed" — even over the myopic horizon over which alone planners do, or can be expected to, plan.

MANY of the products cited by Jagdish Bhagwati are not "products", but composites of products (or sub-products, if Bhagwati so likes). Cars and refrigerators are assemblies of products from different industrial groups (electrical and mechanical engineering and others); paper is made out of pulp. The relevant variable to consider, therefore, is not the final product (in which alone consumers and theoretical economists appear to be interested), but the economies of the sub-products which, even when they go into the same final product, would differ for each sub-product. In the case of the car, the tyres, the batteries and the electrical system are almost always separately organised as manufacturing organisations. In a refrigerator, the cabinet-making and compressor manufacture are industrially distinct activities. Pulp-manufacture need not always be deemed an essential constituent of a paper-maker's job.

There is, therefore, always a case for vertical or horizontal disintegration of industry in India, as at present constituted. If a rethinking of policy is to be done, the lines of re-thinking would need to have a much wider horizon than those suggested by Jagdish Bhagwati — covering each industrial product and its impact on the industrial and organisational structure of industry in India.

Need for Conceptual Clarity
To be able to do this, it would also be necessary for planners and some economists to clarify notions on economies of scale, location, and so on. There is not, in real life technology, a single technically fixed scale of production, but, given the technique, a range of levels of output where average cost would be a minimum and about constant. It is only when a size change involves a technical break-through or, particularly in chemical plants, opportunities for recovering materials or use of by-products, that one enters a horizon of a new cost level (again, with possibly constant costs over a range) and there is no reason why such changes should always involve an increase in scale.

This is the only reason why in the same industry or for the same product, there exist, and survive in a competing world, plants of varying sizes. In the case of cars, for example, the scales of operation on the European continent are much smaller than in the USA. So also in the case of refrigerators. And in pulp manufacture, it is not certain that costs vary significantly as between levels of production ranging from 30,000 tons a year to 100,000 tons.

Industrialists Want Small Plants

Jagdish Bhagwati is worried about the issue of industrial licences involving small (uneconomic) plants

as also the lack of competition in the economy. In fact, the Government have in many cases (for example, paper plants in the first two Plans) set down minimum sizes for plants allowed to be set up — a policy which, in the light of what is said earlier, is more appropriate than Jagdish Bhagwati's suggestion of Government selling pre-determined project reports to prospective industrialists. In many cases, it is the industrialist who does not want a large licence because he is new, or does not have large resources, or is not sure of the market. Unlike what Jagdish Bhagwati states, instances of the Government imposing a smaller capacity on an industrialist are rarer than those of industrialists asking for smaller capacity licences (and not because, as Jagdish Bhagwati states, they fear the Government will not grant them licences for a larger capacity).

The logic of small plants lies not in Government's desire to prevent monopoly as Jagdish Bhagwati argues as in an attempt to decentralise the industrial effort. This, of course, raises another dilemma: should a given target be distributed among a small number of large plants (as favoured by Jagdish Bhagwati) or among a large number of small plants? This is a problem of inter-temporal adjustment of plant size: whether the process

of development should be economic at every point of time or over a period. The problem in India is not only to manufacture a targetted output but also to manufacture entrepreneurs (to broaden the industrial base); hence the small licences. Economies Of scale are obtained not in the immediate present but left to be obtained in the succeeding periods when total demand rises, (Incidentally, it is in this context that the recent restrictions on maintenance imports and increases in excise levies are to be regretted; they prevent many industries from reaching their optimum capacity.)

In this connection, Jagdish Bhagwati is obviously making a mistake in thinking that licensing has been restricted within the capacity targets (thus restricting competition). In fact, it has been pointed out ("The Evolution of Industrial Licensing Policy", the Economic Times, July 10, 1961), that industrial licensing has been more liberal. This has recently been confirmed by the Government in Ministers' replies to questions in the Parliament*, The point at issue here is not whether Industrial licensing should be more or less liberal, but whether we should have planning or do without it.

This is basically a political problem. Jagdish Bhagwati would like planners to prepare project reports and sell them to prospective industrialists. This is a technocrat's concept of economic organisation. In fact, the variables to be considered in arriving at such a solution, as shown above, are more than those mentioned by Jagdish Bhagwati. Some of these are admirably stated by The Economic Weekly (September 1, 1962, p 1398) in the note on automobile policy. Planning is basically a political process, and horse-trading is as prevalent in politics as in business. It would be futile to seek human or social salvation in a technocrat's paradise.

* *Vide*, Shri Nityanand Kanungo's reply to Shri A B Vajpayee in the Rajya Sabha on September 5, 1962 (*The Times of India*, September 6, 1962).

Company Note

Jay Engineering's Exports Fall

JAY Engineering Works has been one of the pioneer exporters of durable consumer goods in this country. Within a relatively short period of time, it has built up a considerable foreign market for its electric fans and sewing machines in Asia, the Middle East and even in Europe. However, in 1961-62 the company's exports suffered a setback. The value of exports declined from Rs 113 lakhs in 1960-61 to Rs 91 lakhs. The Directors of the Company attribute this to import restrictions imposed in Ceylon, Burma, Yugoslavia and Egypt. Exports to these four countries had aggregated to Rs 52 lakhs in 1960-61 against only Rs 19 lakhs this year. Now, foreign exchange difficulties are not peculiar to India and it is too much to expect that other Governments will look kindly upon the continued import of consumer articles like fans and sewing machines. At the same time, however, these Governments would welcome assistance in setting up indigenous industries. Jay Engineering Works has risen to the occasion to meet the challenge of restrictions imposed on imports of its products. Thus it secured permission from the Government of Ceylon to set up a subsidiary company in Geylon, "Usha Industries Ltd", in which it holds 51 per cent of the shares. Initially, the new company will assemble fans and sewing machines from parts sent from the parent company's factory at Calcutta. In course of time, it is presumed, the company would begin manufacture of fans and sewing machines in Ceylon. It is not known whether Jay Engineering Works has approached other Governments, which have restricted import of the company's products, with similar propositions for setting up local production with the company's collaboration,

The decline in exports is not reflected in Jay Engineering

Works' overall working results. The Company's annual report for the year ended March 31, 1962 shows an increase in net profit from Rs 26.14 lakhs in 1960-61 to Rs 30.79 lakhs. Taken together with Rs 7,173 brought forward from last year, the total available for disposal is Rs 30,86 lakhs.

The Directors have proposed that Rs 3 lakhs be allocated to the General Reserve. The dividend liability — at 10 per cent on preference shares and 15 per cent on equity shares.....accounts for Rs 27.77 lakhs, leaving Rs 9,036 to be carried forward to the next year. It will be noticed that in spite of the higher profit the Directors have recommended a reduction in the dividend on equity shares from 17.15 per cent in 1960-61 to 15 per cent, both taxable. This year, however, the distribution is on a larger capital as the company issued equity shares of the value of Rs 60,75 lakhs in 1960-61.

Production of sewing machines increased from 2,56,000 in 1960-61 to 2,73,000 but that of electric fans declined slightly from 5,14,000 to 5,13,000. Sales of both sewing machines and fans registered increases. Sales of fans amounted to Rs 552.25 lakhs (Rs 501.71 lakhs) and of sewing machines to Rs 386.38 lakhs (Rs 384.03 lakhs).

The company's expansion programme in India is making satisfactory progress. The construction of the new factory at Hyderabad was started during the year and installation of machinery and equipment is under way. Assembly of Zig-Zag Machines has been started and is gradually expanding. At present some parts are supplied by the Calcutta factory but it is expected that production will gradually increase during the current year.