Trade Policy and Employment Growth

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THERE IS an unknown but considerable degree of underutilisation of the labour force in developing countries. Apart from being bad for its own sake, this contributes to the very unequal income distribution apparent in these countries and leads to non-optimal use of their resources.

Several reasons can be given for this underutilisation of the labour force. One is the shortage of qualified persons needed to organise and supervise the work of the unqualified or less qualified. Another is the low level of technological knowledge that may help to raise employment once it has been obtained (for example, the use of the new wheat and rice varieties is expected to raise the use of manpower). A third reason may be said to be lack of capital: building activity might contribute considerably to employment, as well as to various other social objectives, but massive building programmes require capital not now available to the developing countries. A fourth reason for lack of employment is the restrictive trade policies not only of developed countries but also of developing countries among themselves.

It is to the fourth cause of the low rate of employment growth in developing countries that this paper will be mainly addressed.

Let me first recall the various types of restrictive trade policies applied by developed countries. First of all, there is the high degree of protection of agriculture in a number of these countries. I confess that from this point of view I am sorry to be a citizen of the Common Market, which has been among the worst sinners in this respect; for although I am definitely in favour of having the Common Market, I am as definitely against having it as protective as it is. In the report of the fourth and fifth sessions of the United Nations Committee for Development Planning [2], it has

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This statement, based on one delivered orally by Professor Tinbergen, is printed here in place of the two-page written paper he prepared for the meeting.

[2] United Nations, Economic and Social Council: *Official records: Forty-seventh Session. Committee for Development Planning: Report on the Fourth and Fifth Sessions (17-21 March 1969 and 7-16 May 1969)* (New York, 1969).

been suggested that for most commodities it should be possible to eliminate impediments to imports from developing countries during the next ten years. This will mean an enormous internal upheaval in the Common Market and in several other developed countries as well: a figure of, say, 50 per cent of the world market price in the form of protection is not exceptional. But I think it would be reasonable, and that it is one of the most important contributions that developed countries could make and therefore *should* make.

Protection of agriculture is by no means the whole story. Various industries are also protected in the developed countries. Perhaps the best-known case is that of the so-called long-term arrangement by GATT for textiles. This is only one example, but a very important one. Under this arrangement the door of the markets of developed countries is being opened for some types of textile products, but only very, very slowly. I think it should be opened at a much faster pace. To be sure, this will require structural changes in the developed countries. Like the agricultural problem, it is not an easy problem to solve; but I am convinced that it can be solved if the will to do so is there.

Finally there is the well-known anti-processing structure of import duties generally. It is a well-known fact that semi-finished products are protected by higher import duties than raw materials, which are very often free of import duty, and that finished products again are protected at a higher rate than semi-finished products. In both cases, these duties make it very difficult for developing countries to process the raw materials they produce. The processing of vegetable oil raw materials, cocoa, and timber are among the best-known examples. In all these cases, industries that it would be quite natural for the developing countries to have, and that would create considerable employment, are blocked for lack of opportunities to export their products.

Now I come to what I feel is the theoretical background to all this. A very long time ago, two Swedish economists formulated what is now generally known as the Ohlin-Hecksher principle of the optimal division of labour, or the optimal dispersion of industry among countries. Very briefly formulated, it states that countries should have those industries and other activities whose factor requirements correspond as closely as possible with the factor endowment of the countries. Or to put it in more everyday language, the capital intensity (whether in terms of physical or of human capital) of the industries chosen should correspond as closely as possible to the capital endowment, both physical and human, of the country concerned.

I had the pleasure recently to join a group of experts asked by the Economic Commission for Asia and the Far East (ECAFE) to check and comment on sector projections of the ECAFE region. We commented, too, on a number of calculations prepared by the ECAFE secretariat, as well as on the plans of most of the countries of the region, and our main conclusion [1] was that in many cases the countries of the region have been forced to choose industries that are too capital-intensive for the development of their countries in the coming decade or in the coming five years, simply because the expansion of the more labour-intensive industries that would be more suitable in view of their factor endowment is blocked in the way I indicated.

Here I should like to elaborate a little on a piece of work of a very provisional and crude character that has been done in the Netherlands Economic Institute, along the following lines. We felt that when most of the choice of industries in every country is made either by private initiative or, under the country's plans, by national individuals or national planners, these decisions may well in certain ways be inconsistent with each other. It stands to reason that, if there is no co-ordination of that sort of activity, inconsistencies may well result. We felt it would be of some use, therefore, if the suggestions made by planners could be checked against an optimal division of labour, showing what industries would be best established in what countries.

Now unfortunately the statistics needed to make a worthwhile exercise of this sort simply do not exist. So we regarded our paper as one, not for publication, but to be submitted to a number of colleagues—and especially to the United Nations Industrial Development Organisation (UNIDO), as well as a few other specialised agencies, perhaps including the ILO—for comment, for better elaboration, and so on. But I should like to explain what we did; for, though I have to acknowledge that the crudity of the material leads to almost ridiculous consequences in some cases, yet it is the first attempt of its kind and I feel that a few of the indications derived are of use.

What we did was to use the only statistics we could lay hands on: the Swedish production statistics covering a number of international industries, that is industries producing goods that can be traded on international markets. The number of industries covered by the Swedish statistics is about eighty-eight, which is considerable. Moreover, the statistics enabled us to estimate not only payments that can reasonably be supposed to be payments to capital but also payments to two types of labour—the more skilled and the less skilled. In this respect I think the Swedish statistics are unique, and they permitted us to obtain at least a very crude idea of the capital intensity of the various industries in accordance with two criteria: first in terms of physical capital used per less qualified worker, and second in terms of the human capital per less qualified worker. If it is assumed that the payments made to these factors represent their shares in production (a lot could be said about that), then it is possible to establish a certain ranking of industries from least capital

[1] See *Sectoral output and employment projections for the Second Development Decade*, Report of the Seventh Group of Experts on Programming Techniques (Bangkok, ECAFE, 1969).

intensive, in both senses, to most capital intensive. The countries of the world can be ranked in the same way, using mainly some very crude indications of the capital stock of these countries and of their stock of skills, concerning which the basic data are published regularly by the International Labour Office in its *Year book of labour statistics.*

What we tried to do, then, was to establish some sort of a correspondence between these two rankings. In order to do so, we had also to know the size of industries and the size of countries. In fact, statistically speaking, what it all comes to is a sort of frequency distribution from the lowest capital intensity to the highest of both countries and industries. As indicators of the size of countries we simply took the number of less qualified people available for international industries; as indicators of the size of industries we took a measure of the demand for their products. Again, demand pattern could only be based on Swedish demand, which may well of course raise serious doubts as to its representativeness, since Sweden is certainly not a country of average income. All this has to be improved, as we have indicated in our paper. Yet I feel that some of the conclusions may be of interest, if only as a starting point, and in order to stimulate constructive criticism leading to improvement.

For the ranking of countries and international industries we actually carried out three exercises; that is, in addition to ranking them separately according to the concepts of physical and human capital as already mentioned, we also ranked them according to the concept of total capital (the sum of physical and human capital). The ranking of countries according to the first two concepts, though they did not exactly coincide, showed a very high correlation and there was no need to rank countries according to each of these concepts separately. So as the criterion of ranking countries we took total capital per less qualified worker in all the international industries in the country in question, and arranged the countries in ten groups from lowest to highest. In the lowest there were some of the most important developing countries; the highest was the United States, the next highest were Western and Eastern Europe, and so on. For the ranking of international industries the three rankings according to the three criteria for measuring capital intensity, though also not very different, were retained in order to ascertain, *inter alia*, the different quantitative requirements of qualified manpower, physical capital and total capital for developing industries selected under each criterion in the developing countries. Under each criterion international industries were arranged into some ten groups or clusters in increasing order of capital intensity. It may be asked why only ten groups were chosen. This was because we wanted to introduce the element of diversification, but only up to a certain point. Though some diversification is necessary, we consider that diversification should not be exaggerated; if it is taken to the extreme the result is complete autarky and this, of course, can never be the highest wisdom in finding the best international division of labour.

The three exercises, then, took the industries according to, first, their physical capital intensity, then their human capital intensity, and finally a combination of the two. Using only the results common to the three exercises, we found that a number of industries—textiles, shoes, leather, glass, wooden furniture and a few metal industries—would typically be suitable for developing countries, ideally serving almost the whole world; which would mean, of course, an enormous increase in the demand for the products of these industries established in the developing countries.

I would like to add right away that we are aware of the fact that capital intensity, especially when measured in such a crude way, is not the only element for determining the optimal division of labour. Another element is that sometimes you may reap the advantages of large-scale production by establishing complexes of industrial production, preferably in co-operation between a number of neighbouring countries (unless, of course, the country is very large, when there is no need for such co-operation). These centres of industrial production offer considerable economies of scale, and it may well be that such a combination or industrial complex would show comparative advantages for developing countries too. But again, among the industries offering important economies of scale, it would be my suggestion that the relatively more labour-intensive ones should be the first to be tackled, whereas the relatively capital-intensive ones should be tackled later. Examples of the first could be the automobile industry and all the various component parts of it, and the machine-tool industries, which are relatively labour-intensive; on the other hand, steel and heavy chemicals, for example, should perhaps be tackled only later. So again in this group of industries, where the economies of scale are very considerable, there would be some logical order.

Turning to another point, it would be erroneous to think that labour-intensive industries should be rejected for development on the grounds that their profits are modest. What matters is not the profits, but the total income earned in them. Future development, being dependent on investments, can be enhanced most if present factors are used so as to maximise total income now; this admits of the maximum of consumption plus investment. It is only in a private enterprise economy that profits are the only source of investment. In a mixed economy, not to speak of a state-guided economy, there is another source of savings, namely government savings, which can just as well be used for investment purposes. What matters really is the total national income and not the profits, and the total national income has to be maximised even now if we want to have the highest possible rate of growth, in order to have the highest possible income ten years from now, or five years from now. Of course, this presupposes that the government is capable of raising the necessary taxes. But I think such investments can even be financed by indirect taxation, which all developing countries are capable of organising; besides, there are some types of direct taxation they are perfectly capable of organising, namely taxation on big companies and also, although this is not for the moment a very strong element, a progressive tax on land, that is one taxing large landowners much more than small landowners. If I may add a personal note, I have decided to undertake a piece of investigation on precisely this point: the contribution that a progressive land tax can make both to higher tax revenues and to better social conditions. But that is by the way.

My next point is so well known that I hardly need stress it. It is that neighbouring developing countries of smaller size would be wise to combine their markets, at least for new products that they have not so far produced or have started to produce only recently. In this way, they could also profit from certain economies of scale.

Finally, the main point I would like to make—which is also the main conclusion that we drew in the expert group in Bangkok, and to which I have already referred—is that the biggest obstacle to the choice of the best industries for developing countries at the moment lies in the restrictive trade policies pursued by the developed countries. This is why in the proposals of the Committee for Development Planning we laid so much stress on this aspect of the contribution that developed countries would have to make. If they would abandon most of their protective policies within five years, a huge increase would be possible in employment in the more labour-intensive industries in which the developing countries already enjoy comparative advantages. And even though I admit that the bulk of employment will have to be created in agriculture and construction, I still believe that the contribution from manufacturing could be considerably larger than it has been so far.