

THE FOREIGN COMPANY AS AN EXPORTER OF TECHNOLOGY<sup>1</sup>

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In the most general terms, the foreign company like other investors or traders, will be attracted by the prospects either of additional profits, or of additional growth in terms of strengthening the position of the foreign company against actual or potential rivals, or of safeguarding its present profits against threatened encroachment. In more specific terms, and with more specific reference to the type of technology transferred to developing countries, the foreign company will wish to spread the high overhead burden of its own past and present R & D expenditures over a larger volume of production (or secure additional returns on its R & D expenditures in the form of royalties), secure outlets for the products which are the results of its own technology (equipment, materials, end products, know-how), and thus secure funds for additional investment in new technology, enabling the foreign company to maintain its technological leadership.

Essentially, then the foreign company will tend to treat the host country as a source of production and profit, while keeping the processes of research and development, of management policy and of output decisions centralised elsewhere, usually at its headquarters. It is also relevant that the foreign company will largely be concerned with larger-scale units of production where R & D work is normally concentrated. One can see that here are areas of potential conflict as well as potential mutually beneficial bargaining. Essentially, it is for the Government and the other groups concerned in the host country, rather than for the foreign company, to secure benefits in the form of technological advance from the activities of the foreign country.

The intermediate middle-income countries, sometimes counted as 'developing' and sometimes as 'developed', but fortunately all rapidly developing in the real sense, will be in an intermediate

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position in respect to technology also. They can make legitimate claims for a great deal more than to provide the geographical space for technological super-firms operating in colonial-type 'enclaves', and generally they are also in a better position than the poorer countries to strike advantageous bargains with the foreign company to secure these more ambitious ends. At the same time, they in turn must be able to offer the foreign company solid reasons in terms of profit and security of production to secure their desired technology, rather than in terms of technological feed-back or new product or process development. In what follows, these are the countries which we shall often have in mind.

The foreign company being specially vulnerable as a result of its size and international structure, will above all look for safety and stability. It knows that risks are unavoidable specially when ties for as long as twenty or thirty years are involved but it will still wish to minimise such risks in so far as they can be predicted. A stable government; predictable policies; absence of sudden convulsions, bolts from the blue or arbitrary action; the prospect of a long-term orderly expansion of the market; peaceful labour relations, management quality, supporting institutions which bear a family resemblance to the foreign companies' own familiar landmarks in their home locations - all these are intrinsically more important to the foreign company than ad hoc baits through tax rebates, a temporary high tariff, or the offer of local monopolies. This does not mean that tax rebates, tariff protection, exclusive deals etc., are not important as effective inducements to a foreign company. But they are more so as symptoms or indicators of government policy and of genuine acceptability than for their own sake, or in compensation for lack of confidence or absence of long-term risk.

It is useful to bear in mind that, in many ways, the foreign company is like any other investor or taxpayer. Administrative efficiency in day-to-day dealings with government departments, including local authorities, the facilities for getting proper information and reasonable answers to reasonable questions, to have its current daily problems dealt with reasonably promptly and with fairness - these matter to the foreign company as much as to all of us. Rhetorics and broad policies are over-rated in many developing countries, while administrative routine is under-rated.

The foreign company however, as distinct from other investors, expects to derive special advantages from its international character. Among these are the privilege of centralised policy decisions for the foreign company as a whole. The opportunity inherent in the structure of the foreign company of shifting profits and resources between its various units to take advantage of tax differentials, foreign exchange restrictions, differential treatment of foreign exchange transfers labelled as 'profits', 'export proceeds' or 'import requirements' or 'royalties' or what have you,

may also be an important element in the operation of the foreign company. All these categories can be largely arbitrary substitutes in the internal accounting and transfer pricing of the foreign company. The foreign company will be very reluctant to involve itself on any long-term and highly committed basis where it feels that the host government or host partner has no understanding for these special interests and policies of the foreign company. While fiscal and other units of the host governments should be able to prevent abuses arising from internal transfer pricing etc., the host country will have to face the fact that a foreign company will wish to make decisions in the interests of the foreign company as a whole, and not necessarily in the interest of the branch or partner in the developing or intermediate country. This will have to be weighed against the other benefits which the foreign company brings with it. The alternative would be to be satisfied with the more limited, and possibly more expensive, contribution of the foreign company in the form of, say, a management contract of limited duration.

The foreign company having established its reputation for technological leadership and high quality of product and efficient management, will treat this reputation as perhaps its most precious asset. This is often not fully understood and appreciated by host government and host partners. The foreign company will not abandon full management control, will not license, enter joint ventures, accept minority shares, rely on local managers, train local personnel, rely on local suppliers etc., if they feel that their present and future standards and leadership would be endangered by such arrangements. If forced to do so in spite of their misgivings or resistance they will exact a corresponding price. It follows that countries or partners which can inspire confidence in the quality of local management, personnel, skills, supporting institutions, or public services will be in a much more favourable bargaining position vis-a-vis the foreign company.

The foreign company is interested in clear-cut, dependable and familiar situations. This also implies that (contrary to popular myth) the foreign company does not like negotiating situations in which 'the other side' (local government and/or local business groups concerned) is clearly unable to understand or pursue its own interest. From the point of view of the foreign company this means that in the short run the foreign company could 'get away with murder', but that there would be bound to be a rude awakening later, with resentment and risk to the smooth operation of the foreign company. Much preferable to the foreign company is a situation where the arrangement is properly negotiated between equals and represents a balance of mutual interests. Where the other side is in the possession of the necessary cost/benefit data or feasibility studies, where it has proper technical and commercial understanding or advice, where the potential business manager or

licensee is experienced and competent, the resulting bargain is that much more likely to be stable. This implies also a reciprocal willingness of the foreign company to give reasonable information although there are natural limits to divulging data prior to an agreement. The possession of an indigenous R & D capacity is an important element in creating a reasonable bargaining position on the host side. So is the absence of pressures of tied aid terms, export credits etc. which limit choice.

The preference of the foreign company for familiar situations often poses difficult problems for the host country. For instance, both the desire to cash in on its R & D outlays and technological know-how and the desire to operate with a familiar technology will lead the foreign company to prefer a capital-intensive operation to the employment of large numbers of local workers. Machines are familiar and dependable; they operate more or less the same in Ankara, Athens, or Belgrade, as in Chicago, Birmingham, or Lille. Local labour is different, tricky, difficult to handle in developing countries with different traditions and structures from the industrial societies from which the foreign company's spring. Hence the foreign company will not mind paying good wages. Wages will still be low by the standards of the home countries of the foreign company; they will still be a small part of the total cost of a capital-intensive operation; they will be a good political investment for the foreign company; they will prevent labour trouble which could interfere with the smooth running of the machinery. But the foreign company will be much less willing to adjust its technology to the local situation, and run a labour-intensive operation. It sometimes - although by no means generally - is also true that capital-intensive technology may reduce the need for certain types of skill which may not be available in the developing country, and may save the foreign company investment in training. Unfortunately the host country may be better served by employment-intensive technology, specially where production for the local market is involved. Local training would also be more desirable than skill-saving technology. High wages may be a doubtful blessing if they set impossibly high wage standards for local employers and put them out of business, or lead them to lose their best workers, or force them into premature mechanisation on their part. The answer often is that the foreign company provides the employment indirectly. For instance a fertiliser factory may not itself employ many people, but greater availability of fertilisers (combined with water and other inputs) may make it possible to increase rural employment by introducing double-cropping. Or the indirect employment may be provided by the Government organising labour-intensive public works or infrastructure development financed out of the increased tax revenue directly or indirectly derived from the activities of the foreign company. However, it takes a competent Government to reconcile the preference of the foreign company for its familiar technology with the needs of the host country which may be for more jobs for its people.

A special concern of the foreign company within the context of its general interest in the stability of the host country, will be the state of its balance of payments. In the last resort, the foreign company depends on payment and conversion into freely usable world currencies, of amortization on its invested capital, of interest and profits, dividends, payments for components and material, royalties, licence and management fees etc. The foreign company is also aware that here there may be a potential conflict with the host country which may wish to protect its balance of payment by restricting or discouraging transfer. Here again, it is important that both sides should be aware of their potentially conflicting interest and be reasonably balanced in bargaining skill and bargaining strength in order to arrive at acceptable stable compromise arrangements.

The prospect of sharing in the market expansion provided by economic integration with neighbouring countries may be a special attraction, as is shown by the attraction of the EEC., EFTA., or even the Central American Common Market for US investment, including the multi-nation companies. In this sense, host countries have the means of attracting the foreign company (and strengthening their bargaining position with them) in their own hands: collaboration with other countries in wider free trade or preferential trading areas. The small markets for manufactured products have been one of the major barriers to the economical application of foreign company technology. The fact that foreign private investment tends to concentrate in the 'developed' part of the World, reflects in part the much higher degree of economic integration that exists there. The European Economic Community has been a very important factor which has influenced the inflow of foreign (i.e. United States) investment into Europe. Greece, Turkey, Portugal, Spain and Yugoslavia benefit to different extents from European economic integration. An increase in the level of integration among the (relatively) underdeveloped parts of Europe would be desirable from the point of view of attracting foreign investment. The same is true for other parts of the world.

As part of its motive of market protection or market development, the foreign company will be keen to secure rights as exclusive suppliers in connection with any joint ventures, licensing agreements etc., entered into. For instance, Attal Co. Agreement with Cynamid in India appointed the latter as the sole purchaser for Attal in the USA. If the foreign company has a high degree of vertical integration it may secure for itself a market by selling requisite materials to its partner. This may clash with local interests in obtaining lower prices through competition, or simply to diversify contacts and technologies. Such conflicts are capable of reasonable compromise and reconciliation, but this again presupposes mature and balanced negotiating positions. It is also important that the economy of the host country should give the right signals to the foreign company: an overvalued

foreign exchange rate, for instance, is an obstacle to the development of local sources of supply in that it makes it profitable to the foreign company to import.

Although foreign companies, specially the larger multinational firms, prefer wholly owned subsidiaries in the interest of centralised management and decision making, cases of fruitful joint ventures are numerous. However joint ventures tend to work better among foreign companies operating in developed countries as the contracting partners are of equal bargaining strength and possess more or less similar technical and managerial potential. When foreign companies set up joint ventures in developing countries the scope for misunderstanding, mistrust and suspicion is greater as the junior partner is usually not in a position to assess the deal that the foreign company offers it.

If a foreign owner of know-how is unwilling to invest directly in the developing country, or alternatively if the government does not wish him to undertake production directly, licensing agreements can provide a vehicle for the transfer of the technical knowledge. A licensing agreement is a contract by which the owner of a production process grants a company the right to utilise the process (with or without patent rights) in exchange for financial compensation. Licensing agreements are by themselves no guarantee against the monopolistic features of the patent system, since the conditions written into the agreement can be just as restrictive as those inherent in the holding of a patent. In this case, however, the conditions are more visible, and thus more subject to regulation by the developing country's government. The real bottleneck lies not in the technical specifications of the patented process, but in the much broader know-how required for successful application of the process. When such broad know-how does not exist (as is the normal case in a developing country), the willing cooperation of the patentee is an indispensable element of an effective transfer of technology; this cooperation must be paid for.

Payments by developing countries for the importation of technology are, common sense tells us, far greater than the receipts (if any) of developing countries from exporting technology. Still, these payments ought not to be considered a measure of the technological dependence of developing countries, but rather a measure of the extent to which this dependence is alleviated. The cost to the developing country will depend not on any feature inevitable in licensing agreements, but on the actual terms and conditions which the licensee is willing or forced to accept. Of particular legitimate concern to governments of developing countries are the amount of financial compensation to the foreign owner of technology and the various possible restrictive features of licensing agreements, features which diminish the benefit of

the technology transfer. Undue financial sacrifices may appear not only in the form of excessive direct fees, but also in excessive prices paid for materials or components bought from the patentee, unduly high management fees, and so forth. It will be seen that the financial terms of the agreement are not easily controlled. Proper control would call for consideration of the terms of a licensing agreement as a whole, not only of the royalty item in them. It is also unquestioned that full control calls for considerable administrative resources which may be beyond the administrative resources available for this purpose in many developing countries.

In the light of much recent experience, the foreign company might be attracted rather than repelled by the provision of orderly and fair divestment (repatriation of investment) policies and arrangements in the host countries, provided these are non-arbitrary and preferably established in non-discriminatory fashion and known in advance. This includes the orderly transfer of control of the new technology involved to local units by a fixed and pre-arranged schedule. In this connection, the proposal of divestment companies made by A.O. Hirschman (for Latin America) deserves serious study.<sup>1</sup> The host countries will be keener to secure a succession of new pioneer operations in preference to a continuing expansion of existing operations - here again the idea of orderly divestment/re-investment cycling can be helpful to all sides, and might well be further discussed and developed. Hirschman maintains that some form of planned divestment may be - quite plausibly - acceptable to the foreign company.

Hirschman holds that since foreign companies are agents of TT, therefore divestment of foreign investment might lead to a slowing of technical advancement: the local firm is usually not in a position to maintain as rapid a rate of technical development as a foreign company is. Hirschman writes "An independent expert commission could be created with the task of appraising whether in any individual case the contribution of a foreign firm to the implanting of technological research and innovation warrants a slowing down of the divestment schedule... A developing country may spell out for foreign investors several distinct mixes of objectives among which divestment may be only one and each foreign investor could elect the particular mix that corresponds most closely to his taste and capabilities".<sup>2</sup>

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<sup>1</sup> Albert O. Hirschman. 'How to Divest in Latin America and Why'. Princeton Essays in International Finance, 1969.

<sup>2</sup> ibid, p. 22.

Technical assistance contracts usually accompany patent or trademark agreements. To use the patent, special knowledge might be required - and if the seller refuses to disclose all necessary knowledge along with the patent, the technical assistance agreement becomes indispensable. Special techniques for example, might be necessary to maintain the quality of a product or to produce efficiently. Technical assistance may take the form of a guarantee on the part of the foreign companies to inform the foreign firms of all developments in this product line. Technical assistance programmes include product specifications and layouts, formulae 'trade secrets', selling techniques and the training of technical personnel.

In developing economies such agreements - both technical and managerial - are indispensable if foreign participation, to any extent whatsoever, is desired. Usually such agreements are part of the overall policy of a foreign company to invest in or collaborate with firms in developing economies. Management contracts - independent of other agreements and sorts of collaboration - are rare as far as private foreign investment in developing economies is concerned.