

suggests that consideration of the problems and prospects for transnational corporations in promoting developing country outward-oriented industrialization cannot be dealt with in aggregate. Therefore, transnational corporations' investments in notably, *export processing zones* and those in final differentiated goods are discussed separately below.

Electronics/semi-conductor ventures by transnational corporations in export-processing zones are firmly based in developing-country comparative advantages in production of labour-intensive goods. United States-based transnational corporations have made the most extensive investments in offshore semi-conductor assembly in these zones, followed at some distance by Japanese and then Western European companies. While such investments began as early as the 1960s in some countries and accelerated rapidly in the early 1970s, they seem to have tapered off in the late 1970s. To a certain extent, there has been a trend toward increasing automation of these offshore assembly operations in an effort to improve process control and boost productivity. At the same time, the evolution of semi-conductor technology and economics seems to have decreased the relative contribution of offshore assembly activities to the total value of the final product. For both these reasons, the importance of assembly labour costs in total production costs appears to have diminished. At the very least, this development would reduce the incentive for transnational corporations in the semiconductor industries to invest in offshore assembly in the future. In addition, the export-processing zones may be affected by specific policies of home governments, notably those reflected in United States tariff regulations, since these, at least to a certain extent, condition investments in the zones.

A decrease of TNC operations in the export-processing zones of the developing countries would pose a threat to their future viability considering the present extent of TNC operations in these zones. However, there are some countervailing factors to these developments. First, while investments by transnational corporations in electronics have been export-oriented, markets for such products have developed in the host countries, and certain among them may be considered as potential growth areas. Although local markets are limited in size, more of the production is now going to local buyers, including other transnational corporations with oper-

ations in the diversified electronics industry. Second, it can be argued that some developing countries which are relatively well supplied with skilled personnel can remain competitive in spite of the changing labour force composition that accompanies automation since the wage costs of their engineers and technicians are often far lower than in developed countries. These technicians, who are often trained in and have work experience from developed countries can be employed by transnational corporations in their developing country operations. TNCs may be specially inclined to do this since in certain developed countries a future shortage of technicians is anticipated. In addition, it is possible that capital-intensive equipment can be used more extensively and therefore more profitably in developing countries because the regulations covering employment and working conditions differ from those in the developed countries.

Moreover, a few developing countries are also making concerted efforts - which have proven to be successful in specific countries - to upgrade their production of semi-conductors and other electronic products and to launch training programmes for electronic engineers, computer programmers and systems analysts in order to build up integrated electronic production. Some recent attempts to proceed to more integrated forms of semi-conductor manufacturing can be noted in a few East Asian countries, occasionally in co-operation with transnational corporations. While this indeed is encouraging, it would however be unrealistic to believe that the majority of developing countries which now have, or which plan to establish, export-processing zones will have the possibility to enter the more integrated and advanced production of electronics. Many of these countries lack the necessary infrastructural facilities and industrial capability for such skill-intensive ventures. It seems likely, therefore, that transnational corporations will concentrate their ventures in the electronics industry in a relatively few developing countries which have a well-developed industrial and technological base. Especially with regard to assembly operations, notably semi-conductors, there may be a TNC tendency to shift their activities among those developing countries that can provide an adequate industrial milieu within specific economic zones and an ample supply of lower skilled labour (notably, young females which are a dominant category of labour in such production). This would occur because of shifts over

time among these countries in labour costs and because of financial incentives provided by these in order to attract such TNC ventures.

In order to diminish their exposure to changes in transnational corporations activities in the export-processing zones, developing countries might try to diversify the ownership structure of the corporations operating in the zones, that is, by trying to expand the role of domestic corporations. In addition, efforts to diversify the range of products manufactured in the zones may also be advantageous from the point of view of short-term stability as well as long-term viability of the zones.

In general, because the viability of the export-processing zones rests to such an important extent on the strategies and interests of transnational corporations and on technological developments and since the possibilities for domestic corporations to expand operations in the zones probably are limited, an industrial development strategy relying on export-processing zones alone would not be prudent. In those developing countries for which the availability of less skilled labour is the main, and, perhaps, the only economic resource, the export-processing zones may be of value in the initial phase of industrialization. In other developing countries they can be an important supplement to other industrialization efforts. In both cases, the export-processing zones can create employment opportunities and yield export earnings. In the long run, however, attempts should be made to further the integration of the zones into the overall industrialization efforts, for example, by enhancing the establishment of forward linkages between semiconductor production and the manufacture of certain consumer electronic products such as calculators, digital watches, and electronic games. The use of export-processing zones in conjunction with import-substitution oriented activities which can become internationally efficient and export-oriented activities of a more general kind, would provide more diversified and viable industrial capacity and capability in the developing countries.

There are important questions regarding the future participation of transnational corporations in *the export-oriented production of differentiated final goods*, which many developing countries began to produce under import-substituting schemes of industrialization. Originally, transnational corporations did not need to consider

the international efficiency of their ventures established under these schemes because they were assured of adequate profits behind protective tariff barriers. However, as export orientation increases and import protection decreases, transnational corporations will become increasingly concerned about the international competitiveness also of their production of final goods in developing countries, especially when such production is integrated into their global networks. To the extent that countries liberalize their import regulations and reduce tariffs, transnational corporations will have the option to supply the markets in these countries through exports instead of by local production, as indeed they did before the institution of the original import-substitution schemes. Already, in certain specific cases, foreign companies have withdrawn and reorganized their operations when the countries have lowered their import restrictions and thereby exposed the local production to internationally efficient competition. However, a massive withdrawal of transnational corporations from developing countries is unlikely because -- as indicated before, notably with respect to Latin America -- very few countries have abandoned import substitution completely in favour of export-oriented industrialization and moreover, some of these have large and expansive local markets. In addition, as referred to before, several countries, although largely in East Asia, provide TNCs with very attractive production and export bases in the field of final electronic products.

The relatively limited number of TNC export oriented ventures which have emerged based on the second stage import-substituting industrialization, at least in many Latin American countries, continue to depend on host country's export subsidies to compensate for relatively costly local inputs, for instance in auto industry. While such subsidies may offset the cost of using local inputs, they cannot assure that the products of local origin are of appropriate quality. Nor can the host countries subsidies continue to be granted indefinitely. Should such subsidies cease before local suppliers are sufficiently competent to supply cost efficient products of an acceptable quality, the corporations may be encouraged to relocate their activities elsewhere, perhaps in developed countries. Of course, as mentioned before, transnational corporations should make a consistent effort to train their local suppliers to the point where they can become cost-efficient

producers. However, the prospects for achieving this objective depends on the existence of a basic level of competence of local suppliers.

The propensity of transnational corporations to participate in export-oriented ventures will depend increasingly on the local industrial capability, including the availability of skilled labour and efficient local suppliers. The demand on local capabilities will be heightened in instances where the corporations are required to use local inputs. In general, it seems that the various government incentives will be less attractive if an appropriate industrial milieu, including skilled labour, capital markets and transport structure, is not already present for export-oriented ventures, since there is little advantage in offering incentives if the products cannot be produced efficiently in the long run and sold internationally. Thus, from a strategic point of view, measures taken by host countries - especially, as has been

done by several East Asian countries - to establish a propitious environment for efficient industrial production will assume increasing importance as corporations are requested to expand exports of relatively sophisticated products, notably those previously produced under import-substituting industrialization.

In general, the international efficiency of this production is of considerable concern for the future. It would be detrimental to the export efforts of concerned developing countries and, thereby, to their future ability to service their current large international debts, if an unsatisfactory development in production efficiency would constitute an obstacle to exports even when the international economic situation has improved considerably and when barriers to trade to developed countries have diminished in importance.

V. MAIN CONCLUSIONS AND FURTHER POLICY IMPLICATIONS

Transnational corporations (TNCs) have positively affected the structural development, size and growth of the manufacturing sector in developing countries in the last decades. This has mainly been the case, however, in those relatively few countries which have promoted a technically rather advanced production and not in the large number of developing countries which concentrate their industrialization on fulfilling basic needs in staple food, clothing and shelter. This underlines that while transnational corporations can have an important role in industrial development, the technologically and, from an income point of view, advanced nature of their activities and products do not put them in a position to make a significant contribution to the industrialization and development process of all developing countries.

There are cases (especially, in the context of export-processing zones and with regard to electronic component production and assembling activities) when transnational corporation activities in developing countries have intensively focussed on these countries' comparative advantage in less skilled labour intensive production. However, largely, TNC activities have been in production that requires more skilled labour and more advanced technical and marketing know-how notably, differentiated capital and consumer non-durable goods and process industry goods. Considering the comparative advantage of developed countries in such production, this type of production would hardly have occurred to such an extent in developing countries as is nowadays the case, if developing countries only would have had to resort to trusting a "natural production transfer from developed to developing countries". It is with this in mind that one fully has to appreciate the instrumental role that transnational corporations - commanding an unique internationally mobile resource package of industrial capability including, technical, managerial and marketing knowledge - have had in advancing the industrial structure in those developing countries in which they have concentrated their activities.

By establishing industrial capacity in developing countries, transnational corporations have also contributed to an expansion in exports and employment of these countries. Their role in de-

veloping country exports has, however, been of selective importance. The main restriction here has probably not been, to any larger extent, whether or not TNCs have been willing to export from the host developing countries but, primarily, that these corporations to such an extent have participated in inward oriented industrialization schemes, promoted by the developing countries. Very often, such schemes were not conducive to providing even in the longer term an internationally efficient production base for exports. In addition, most developing countries instituted the same type of schemes and in developed countries, TNCs already had efficient producing subsidiaries. The quantitative role of transnational corporations in generating employment opportunities in developing countries can only be a minor one, considering the vast overall need for employment in these countries. At the same time, taking into regard the concentration of TNC activities in specific industries, this general conclusion does not exclude that transnational corporations can have an important employment role in the specific industry or instance.

To identify the above contributions is not sufficient in order to establish the overall net benefits to developing host countries, stemming from the TNC participation in their industrialization. As of yet, it is not known to what extent transnational corporations also optimally have contributed to the formation of an industrial capability in these countries especially, by stimulating local entreprenuring, managerial skills and labour skills in general. This is probably the most central aspect on their participation since such a capability is decisive for the future expansion of the industrial capacity in developing countries, measured in terms of production, employment and exports. Moreover, it is not clear to what extent the production efficiency in transnational corporation ventures in developing countries will be sufficient for a future expansion of exports and, thus, for providing a net contribution to economic welfare in these countries. These two aspects are the most important ones in balancing the positive role that transnational corporations have had in the structural development and expansion of the developing country manufacturing sector.

The developing country operations by the transnational corporations have, naturally, been guided by their profit requirements within the context of their global activities. The nature, form, extent and impact of their activities have been conditioned by these requirements. However, to an important extent, they have also been conditioned by the characteristics of the developing host country industrialization schemes, industrial policies and local industrial infrastructure, establishing the framework within which TNCs have been active in these countries.

Thus, while it should be recognized that the participation of resource rich and, on the market place, powerful transnational corporations can give rise to various economic concerns in a developing country, a large share of those economic effects which often have been perceived as being TNC specific are due to the very nature of the industrialization strategies pursued by the developing countries and, the relatively adverse production conditions in many of these - including, a lack of a sufficiently developed industrial infrastructure, a limited availability of skilled labour, limited internal markets and, often, the absence of a local entrepreneurial capacity and local corporations that could act as a countervailing power to the influence of the transnational corporations. Thus, it seems that the disappointment with the TNC developing country participation, as this sometimes is expressed, to a large extent comes down to a less realistic perception of what transnational corporations can achieve in a developing country economic context. In general, these corporations are accustomed to developed country conditions - including, the existence of an highly developed industrial infrastructure, a production that most often is exposed to international competition and, the countervailing influence from other corporations - and, while they indeed, properly fitted into a sufficiently developed industrial milieu, can give a valuable contribution to industrialization, they cannot be thought of as providers of a swift solution to serious basic industrial production problems existing in many developing countries.

In general, it appears that transnational corporations have performed most efficiently when country schemes and policies have been clearly based on the comparative advantages of the host countries. Primarily, this has been the case when transnational corporations have participated in

export-oriented schemes of industrialization. Otherwise, to the extent that their local production has been more expensive in the longer run than the import of the same product, their participation might have implied a net loss in economic welfare and foreign exchange for the host countries. Frequently, this seems to have been the case under import-substitution oriented industrialization schemes although, the efficiency of the production has improved to a certain extent overtime and although, in specific cases, successful transnational corporation ventures have been developed in the framework of these schemes, based on the exploitation of dynamic country comparative advantages.

While TNC operations within export-oriented industrialization schemes are more likely to achieve an internationally efficient production both in the short and long run and contribute net gains to the balance of payments than those established behind protective tariff walls, an one-sided focus on their participation in such schemes may, however, have certain drawbacks. Transnational corporations may concentrate their activities in those countries and instances which presently offer a comparative production advantage and thus, without the type of host country incentives provided by import substituting industrialization strategies, TNC would not take an interest in participating in the development of long-term, dynamic developing country comparative advantages. This tendency might accelerate in the future to the extent that developing countries increasingly focus on an export-oriented industrialization. Also, export-oriented investments in any individual country may develop within enclaves as is often the case with TNC investments in export processing zones.

Thus, while TNC investments most probably will become increasingly export-oriented and concentrated in fewer countries, those in inward-oriented ventures will most probably decrease. This latter fact would be unfortunate for the reasons mentioned above but also because such ventures are probably better linked to the local economy and better positioned to provide a contribution to the formation of a local industrial capability than most export-oriented investments of a component assembly nature. Therefore, in consequence, in the same manner as country schemes of industrialization should not be a matter of either inward- or outward-oriented ones, efforts should be made to encourage both outward- and inward-oriented investments by

transnational corporations. This should be done in order to extract a maximal contribution by transnational corporations to industrialization, that is, a contribution to both an internationally efficient production and an enhancement of a local industrial capability.

The achievement of both these ends requires that transnational corporations make optimal, concerted efforts to contribute to industrial development whenever the conditions at large are basically conducive to economically viable production; that conscientious and comprehensive country industrial policies are outlined; and, that carefully constructed and realistic country measures are directed towards these corporations. Industrialization schemes which discriminate neither against inward- nor outward-oriented activities are likely to be the ideal, although striking such a balance requires that government subsidies are neutral between the two types of activities and that governments foster a discipline in import-substitution ventures, phasing these out as they become more efficient over time. This necessitates concerted government efforts to stimulate the local industrial milieu at large.

In general, policies and measures directed towards transnational corporations should attempt to ensure: (i) that the participation of these corporations is conducive to a dynamic process of industrialization and adds to the establishment of a long-term efficient manufacturing sector; (ii) that optimal positive long-run effects of their participation are obtained by a focus on enhancing their contribution to - not primarily the local industrial capacity but - the local industrial capability foremostly, the enhancement of labour skills and the establishment of local linkages which can contribute to the development of efficient auxiliary industries; (iii) that a long-run self-sustained local industrial capability is developed with a clear balance between the extent of activities of transnational and local corporations; and, (iv) that the participation of transnational corporations will enhance the fulfillment of broad socio-economic objectives and will not adversely affect efforts to achieve other central host country objectives.

It would be totally unrealistic to assume that all this can be accomplished in a short period of time or that most developing countries would be

able to achieve this only by their own efforts. While it is of crucial importance that a country has realistic and well-focussed industrialization strategies and industry policies, outlined in accordance with its development needs and resources in a dynamic context, considerable international support is also necessary. Such support would include a resource transfer to generate a viable and effective industrial infrastructure but also, in the case of most developing countries, an assistance in training, know-how and support with regard to how to handle issues on the participation of transnational corporations.

It is important to emphasize that this latter type of support should not only be concerned with legal aspects on the TNC participation but, primarily, it has to deal with all those economic questions which are related to a definition of when, where, how and to what extent transnational corporations should participate in order to provide an optimal, realistic and meaningful contribution to the industrialization process. Thus, while legal assistance to developing countries is of importance, legal instruments - including, country legislation on the participation of transnational corporations and various contractual agreements - must be well founded in the economic realities of the country in order for these instruments to provide an effective role in fashioning and optimizing the TNC contribution to industrialization. At the same time, since conditions vary among countries to such an extent and thereby, the answers to the above questions, one should caution against an one shot blueprint approach when suggesting legislation on the TNC participation in developing countries. What can be fully adequate for one specific country, in one economic situation and at one point of time may be inappropriate for some other country in a different economic situation and point of time. Thus, country legislation has not only to be fashioned to the specific economic situation but also, it has to be dynamic in order to cope with changing national and international economic conditions.

While the above considerations are important - as are those related to the skill in the actual management of TNC investment projects - , their application cannot always guarantee a successful TNC participation since economic outcomes and developments cannot always be predicted. This,

however, is no reason to stay away from concerted economic analysis and planning on the TNC participation but instead, it underlines the need to learn from previous experiences in order to enhance an efficient outcome of future projects. And with regard to the historic experiences of the TNC participation as discussed in this report, there are reasons to try to learn from these in order to make better use of those net-benefits which are inherent in a TNC-participation.

Once one has arrived at an answer to the above economic questions, the need for and nature of possible country incentive schemes to attract TNC participation can be effectively analysed. In general, incentive schemes which are not firmly anchored in the true needs of the host country, its resource endowments and economic infrastructure in an international context, will not be effective from the point of view of the country but will only provide TNCs with a windfall profit. And to be sure, no TNC will participate in any country industrialization only because of available incentives. Thus, such schemes have a meaningful role once the overall economic conditions for a long-term TNC participation are favourable. At this point, incentives can be effective for instance, by compensating for start-up costs or costs which are incurred (on a short-term basis) by the very schemes of the industrialization pursued by the host countries with a view to produce in the longer term an internationally efficient production and/or a production that caters to specific and essential local needs. In the same manner, country performance requirements directed towards TNCs will be truly meaningful first when the host country objectively has analyzed the extent to which its economic conditions, seen in an international context, actually present TNCs with a realistic possibility to fulfill the requirements, given that a TNC is a private corporation operating in an international market economy context.

While national efforts indeed are important, it is also necessary to outline broadly defined international instruments which can assist developing countries - many of which continue to have a low bargaining power with regard to powerful, resource rich and globally active transnational corporations - to deal effectively with transnational corporations. Such instruments

would perhaps appear to be most important to the extent that they concentrate on those international aspects of TNC activities including, those on transfer pricing which cannot always be dealt with effectively in a national legal context. Such instruments, even when they are not legally enforceable, can be decisive - through the effect on the TNC good - will capital - in providing TNCs with guidance for their global activities seen in the context of their role in world economic development.

International instruments are also needed to guarantee transnational corporations that once they participate in industrialization - on conditions established by the host countries and in accordance with international agreements on such participation - ,their basic commercial motivations will be duly appreciated and the long-term existence of their investments secured. In this context, one should appreciate the central role that the TNC risk perception have for their decision to participate in developing countries.

While bilateral investment agreements and various home country insurance schemes - as well as the private political risk insurance market - indeed are valuable, political risk insurance schemes can be broadened by giving them a more international base. These latter type of schemes would be especially effective when national developed country schemes are overextended, and they could also provide for a project diversification and stimulate multinational projects. And even when they would not lead to additional TNC investments, the existence of these schemes could lessen the risk situation as perceived by transnational corporations. This would lower the rate of return requested by TNCs and would benefit the host country. And also, such schemes could be important if they encouraged a participation in developing countries of not only large but also smaller and medium-sized corporations.

Such an internationally based political risk insurance scheme would thus be important in supplementing and complementing bilateral investment schemes in the framework of and in agreement with international agreements of the type discussed before. It would improve the investment climate in developing countries and could also stimulate more of a realistic analysis of the specific TNC investment situation, thereby enhancing the probability for having successful

TNC investment projects in these countries. This presupposes that the application of such a scheme is firmly based in a two-pronged approach: both an analysis of the needs of the country, its resource and market situation and, a realistic analysis of the role that transnational corporations can have in the type of industrial development sought for by the country.

Again it is in the convergence of the host country development objectives and the private objectives of the transnational corporations that the development role of these corporations has to be found and defined. From the point of view of an effective TNC participation in industrial

development, it is important that these objectives are clearly defined and documented in order to give the parties concerned the benefit of not entering into an agreement which either of them it is not in a position to respect and understand. Such a basic point of departure for the co-operation between developing countries and transnational corporations will furnish a critical, constructive and positive approach to the issue on the TNC participation industrialization. This would be in the interest of both host developing countries and transnational corporations since it would minimize possible frictions between them and enhance the positive role that transnational corporations can have in developing country industrialization.



Notes

1) For specific data on the industry, sector and country distribution of transnational corporation foreign direct investments and non-equity participation in developing and developed countries, see **Salient Features and Trends in Foreign Direct Investments** (United Nations Centre on Transnational Corporations, United Nations Publications, Sales No. E.83.II.A.8), **Transnational Corporations in World Development. Third Survey** (United Nations Centre on Transnational Corporations, United Nations publication, Sales No. E.83.II.A.14, ST/CTC/46) and, **Dimensions and Structures of Foreign Direct Investments and Transnational Corporation Activities in Developed Market Economy Countries** (Report by the ECE/UNCTC Joint Unit on Transnational Corporations, ECE/UNCTC Joint Unit Publication Series No. 4, forthcoming).

2) Foreign direct investments by transnational corporations in developing countries have also grown considerably in the services sector - even more than in the manufacturing sector - notably due to increasing investments in trade activities and in other services industries, including finance, insurance and advertising. Although with a time lag, this growth has to a considerable extent been associated with the growth in transnational corporation investments in the manufacturing sector.

3) In a practical context, it can be difficult to identify and define clearly various industrialization schemes and the differences between them. To facilitate and to clarify the analysis of the TNC participation, the industrialization schemes as discussed in this report have been characterized in broad terms.

4) See sources indicated in note 1.

5) By contrast with relatively standardized goods, differentiated goods are tailored to the perceived specific requirements of various users. The production of differentiated goods, in opposition to the production of standardized goods, involves specialized technical skills -- very often based on large research and development efforts -- as well as more advanced managerial and marketing skills. Most often, the skills involved in the production of differen-

tiated goods are product-related and to a less extent production process related.

6) In this paper **industrial capacity** is a quantitative concept which refers to the level of industrial activity as reflected in the production volume and/or size of employment. **Industrial capability**, in contrast, is a more qualitative, less easily measurable concept which includes accumulated production experience and the level of development of technical, management and marketing skills and other factors which affect not only the quantity and quality of goods which can be produced in the present but the prospects for sustained expansion and upgrading of industrial capacity in the future.

7) At least this is the case for United States based TNC affiliates, for which export sales as a percentage of total sales were 18 per cent for all developing countries, 10 per cent for Latin American countries and 57 per cent for countries in Asia and the Pacific. (Source: U.S. Direct Investment Abroad, 1977, United States Department of Commerce, Washington, D.C., April 1981). This pattern is the same for all countries and industries. Although these differences in export intensities can reflect the size of the local host country market, they seem to indicate that the U.S. based TNC ventures in Asia have been much more conducive to an export-orientation than those in Latin America. (For general quantitative data on the role of TNCs in developing country exports, see sources given in note 1 above).

8) Transnational corporations have not - as partly referred to above - been instrumental in the transfer from developed to developing countries of production notably, in the textile/apparel, steel and ship building industries, where, as is well-known, the latter countries have expanded and the former have decreased their activities considerably. The simple reason for this is that TNCs in general have to a very limited extent been active in this type of industries where it is difficult to achieve monopolistic competitive advantages of the same nature as in the production of differentiated skill-intensive goods or, in production where the competitive advantages are based on proprietary process technology.

