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Panel III Globalization and industrial partnerships



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Globalization and industrial partnerships

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LIST OF ABBREVIATIONS

BO	Build and Operate
BOT	Build-Operate-Transfer
FDI	Foreign direct investment
LDCs	Least developed countries
MERIT	Maastricht Economic Research Institute on Innovation and Technology
MFA	Multi-Fibre Arrangement
NEC	Non-Equity Cooperation
R&D	Research and Development
TIES	Technology Information Exchange System
TNCs	Transnational Corporations
TRIMs	Trade-related investment measures
TRIPs	Trade-related aspects of intellectual property rights
WTO	World Trade Organization

INTRODUCTION

1. During the present decade of rapid economic and technological change, the globalization of industry and industry-related activities has acquired a new and critical significance and is in the process of undergoing considerable transformation. The concept of globalization, which essentially relates to the activities of individual firms across national boundaries, is not new and, in fact, reflects the global activities of transnational corporations (TNCs) through their subsidiaries and affiliates. What gives the concept a new dimension is the extraordinary growth of international activities of firms, the increased number of enterprises that are involved, and the range and combinations of inter-firm relationships between business enterprises in different countries and in various production and service sectors. This process is not only likely to continue but to increase significantly during the next decade. It will be necessary for enterprises in developing countries, including in least developed countries (LDCs), to adjust to the reality of a global market for most products and services and the need to compete with a widening group of firms from different countries participating and competing in such a market.

2. The process of globalization has undoubtedly received a major fillip because of revolutionary technological innovations and developments in informatics and in information and communications technologies, which have brought global markets much closer and made interaction and integration of global activities much easier. At the same time, the opening of global markets through trade liberalization under the Uruguay Round agreements^{1/} has not only made it necessary for firms to extend their operations beyond national boundaries, but has also provided the opportunity and potential for such expansion, provided competitive export-oriented capability can be developed and maintained in particular market segments. The development of competitiveness and exports in a highly-competitive and dynamic global environment poses a major challenge for enterprises from developing countries and transition economies. Additional investment resources will be necessary and new technology and marketing linkages will be required for high-quality products and services, which may be subject to constant change.

3. The extent to which foreign direct investment (FDI) can be attracted to meet investment and technology requirements can be a crucial factor for several countries. The principal motivation for such investment would, however, also determine its contribution to exports. Such investment may principally be undertaken because of large potential markets in countries such as China, India and Indonesia. At the same time, where FDI is attracted by the availability of cheap, semi-skilled labour, as in the offshore production of electronic components and sub-assemblies in South-East Asia during the 1970s and 1980s, such investment can serve as the base for the rapid growth of local firms in the manufacture of electronic products and equipment, as took place in

^{1/} *Legal Instruments Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations*, done at Marrakesh on 15 April 1994 (GATT Secretariat publication, sales no. GATT/1994-7).

Hong Kong, the Republic of Korea, Singapore and Taiwan Province, China, and other South-East Asian economies.

4. An important development, largely between firms in industrialized countries and especially with respect to new, generic technologies, has been the development of strategic alliances for the sharing of information on technology and research and development (R&D), and also to develop production and other linkages in fields such as aerospace or defence-oriented production. The mechanism of strategic alliances should also be utilized by developing countries and transition economies including linkages with enterprises in other developing countries and industrially-developed transition economies.

5. Apart from FDI, several alternative forms of foreign participation have developed^{2/}, ranging from joint ventures with minority foreign holdings to non-affiliate technology licensing agreements and contractual arrangements relating to buy-backs, franchises and various types of construction agreements. A key feature in such arrangements is that ownership control rests with the local partner or shareholders.

6. Globalization can take place in various forms and through different activities. In the case of traditional TNC operations, globalization normally relates to transfer of development of production capacity or services for the same or similar products or services by a TNC through subsidiaries and affiliates controlled by the TNC. It may also take place through licensing of technology by a TNC or foreign company, besides use of trademarks and provision of technical services. Another level of globalization can relate to a division of the production function between a foreign company and its subsidiary or affiliate, or local supplier in different countries. This is applicable in different types of industries ranging from automobile production, where certain components and subassemblies are produced for global markets, to electronics, where most components are manufactured in South-East Asia for final products assembled in industrialized countries. A third level of globalization may relate to the R&D function, where several aspects of R&D may be undertaken in countries where research costs are much cheaper, as in developing countries and transition economies.

7. The development in globalization and the potential for industrial partnerships raises several policy and other issues, which need to be considered.

I. PRINCIPAL ISSUES FOR CONSIDERATION

8. Some principal issues for consideration are the following:

(a) It is necessary to assess whether, in the context of the emerging global economic situation, globalization of activities should constitute a major objective for enterprises in developing countries and transition economies, recognizing that this may well relate to

^{2/} Background Paper III/1, Peter Nunnenkamp and Erich Gundlach, "Globalization of manufacturing activity: Evidence and implications for industrialization in developing countries" (ID/WG.542/13(SPEC)).

just a specific product-group or industry-related service in a niche area. If globalization is to be a major objective, then its implications in terms of enterprise-level activities and policy and institutional support need to be determined;

(b) At the enterprise level, competitiveness will need to be developed. This would necessitate information on potential markets, assessment of technology usage, determination of additional investment needs, and development of competitive production and marketing capability in terms of quality products and services. It should also be considered whether competitive and innovative capability should be developed internally by local enterprises or whether partnerships and linkages would be necessary for participation in investment, technology and skills development and expansion of export markets;

(c) It will be necessary that, if foreign partnerships are required, local enterprises should take the lead and initiative in locating suitable foreign partners and determining the nature and terms of participation. The potential for such partnerships with foreign enterprises in other developing countries should also be assessed;

(d) The role of Governments in promoting such partnerships should be considered, including development of information systems and facilitating contacts with foreign firms;

(e) It will be necessary to consider the nature of institutional support to be provided to local enterprises, including with respect to training programmes for specialized skill development, managerial and organizational changes, and technology absorption and adaptation, besides institutional facilities for certification of quality, and applied research facilities in selected fields, including in new technologies;

(f) It should be considered whether for developing innovative capability in developing countries and transition economies, enterprise-to-enterprise linkages with foreign firms should preferably be sought through joint ventures and non-affiliate licensing including with TNCs. The role of FDI needs to be recognized, however, as also being of great importance for covering investment gaps and ensuring technology inflow accompanying such investments. The provisions of the Uruguay Round agreements on trade-related investment measures (TRIMs) and trade-related aspects of intellectual property rights (TRIPs)^{3/} will also have to be taken into account;

(g) It should be considered whether the division of selected production functions in industrial subsectors, such as aerospace, capital goods manufacture or electronics production or for particular products such as automobiles, will have increasing potential in the next decade, particularly for developing countries and transition economies, together with the implications for enterprises in these countries;

^{3/} These issues will also be considered by Panel IV on Global Trade Liberalization: Implications for Industrial Restructuring.

(h) In view of rising costs of industrial research, it may be considered whether there will be increased potential for industrial research in developing countries and transition economies on behalf of TNCs and industrialized economies and, if so, how such research activities can be promoted.^{4/}

II. THE DRIVING FORCES OF GLOBALIZATION

9. In recent decades, the steady expansion of international trade in goods and services has outpaced, on average, the growth of global output. More significant still, increasing flows of FDI worldwide have outrun, during the 1990s, international trade expansion by a factor of three to four. The relative growth of external trade and industrial investment as related to production reflects the increased globalization of economic activities. At the national level, these figures may also indicate the degree of integration of a particular country into the international market-place.

10. The tighter consolidation of manufacturing processes worldwide has been triggered by lower transportation costs, faster and more reliable communications, and technological innovations allowing for increased specialization of production patterns. In addition, global trade liberalization following the Uruguay Round agreements, domestic liberalization policies, particularly on foreign investment and technology, and international deregulation of capital markets and business services, such as banking and insurance, have considerably lessened the significance of national boundaries in resource allocation, and blurred the former distinction between "tradables" and "non-tradables". There has also been considerable growth of production capacity and diffusion of technological capability in a number of developing countries, particularly in Asia and Latin America, though most African countries are lagging far behind. Combined with specific patterns of factor endowments and relative prices in several developing countries, there are growing opportunities for international cooperation at enterprise-to-enterprise level, particularly, with respect to technology and marketing.

11. These supply-side considerations should not, however, detract from major policy reforms implemented by developing countries to spur domestic and foreign investment and technology inflow, improve the overall debt-equity exposure, keep up with the pace of technological progress, and strengthen the competitiveness of their industries. Ultimately, the extent of competitiveness is determined by corporate strategies of individual local enterprises as well as by the attractiveness of the host economy. International competition for foreign capital and technology is keen and Governments and local businesses must join forces to create dynamic comparative advantages if they are to capture an adequate share of global investment and technology flows.

^{4/} This issue will also be considered by Panel II: on New Technologies, Innovations and Competitiveness.

III. FORMS OF GLOBALIZATION

12. Globalization at the level of production processes involves transfer of technology in a broad sense; that is, encompassing capital goods, services such as plant designs and installation and training of personnel, besides intangibles such as production technology, including proprietary designs or brand names. These components of technology transfer are combined in different bundles and translate in practice into a variety of transactions for global integration as follows:

- Pure *trade* in capital goods stands at one end of the spectrum. However, the range of technologies strictly available "off the shelf" is fairly narrow, and their use is largely confined to standard manufacturing processes. More important in the trade category is the extent of intra-firm trade of components, intermediates and semi-transformed products between TNCs and their affiliates, estimated at about half of total world trade.^{5/} Although indicating a form of integration of manufacture in different countries, such arm's-length exchanges of goods and services clearly play a marginal role as far as technology transfer is concerned;
- FDI still lies in the mainstream of cross-border cooperation between firms. It implies by definition either new investment or the acquisition of majority holdings in host countries' enterprises, leading to a redistribution of ownership and control at the international level. An FDI package typically includes capital goods together with related services and intangible assets;
- *Non-Equity Cooperation* (NEC), on the contrary, refers to a variety of international partnership forms where the foreign company does not explicitly seek control over the local enterprise. Through a NEC partnership, a bundle of tangible and/or intangible assets is provided by the foreign company for due consideration by the local enterprise. Practical modes of non-equity cooperation are:
 - * Arm's-length licensing of technology, where the parent company grants access to designs, drawings, or process know-how against royalties or a lump-sum licence fee. Restrictive clauses may figure in the contract, such as a limited time frame and stringent conditions on inputs or markets;
 - * Franchising, or a form of licensing accompanied by the right to exploit locally brand names and trademarks for fast-food products, hotels and a variety of products and services;
 - * Production-sharing agreements through international sub-contracting on the basis of specifications imposed by the parent company. Agreements of this nature are considered under the inter-firm technology transfer

^{5/} Background paper No. II/2, Nagesh Kumar, "Foreign direct investment, technology transfer and exports of developing countries: Trends and policy implications". See also World Bank, "Global Economic Prospects for Developing countries", Washington, April 1995.

category to the extent that they also include the delivery of proprietary designs and drawings;

- * Strategic technology alliances cemented around joint R&D and other innovative activities. They seal arrangements for two-way transfers of technology and for sharing of R&D and other functions;
- * Joint-ventures with minority foreign equity participation. As in the case of FDI, these involve financial participation in the capital of the host company, although restricted to a minority often limited to 10-20 per cent of equity capital^{6/} but extending up to 49 per cent in certain cases;
- * Portfolio investment, or the acquisition by foreign investors of minority stakes in local enterprises. Portfolio investments today account for a fast-growing share of global capital flows. Unlike joint-ventures, they do not necessarily entail transfer of technology, and constitute a purely financial operation which can in certain circumstances, be speculative;
- * Construction contracts ranging from Build and Operate (BO), Build-Operate-Transfer (BOT) and turnkey contracts to plant design and construction contracts for specific projects. Varying degrees of technology transfer and training of local personnel may take place, depending on the conditions of the contract.

IV. TRENDS IN GLOEALIZATION

13. The availability of data on different forms of foreign participation varies considerably. While FDI can be assessed with accuracy from flows of goods, services and incomes in balance-of-payment statistics, data relating to details of alternative forms of foreign participation are not available. Thus, while a broad assessment can be made of the extent and range of technology transfer by the number of technology agreements in various fields, information that is generally available, details of the payments, terms and conditions of specific agreements may be difficult to obtain. The UNIDO programme on Technology Information Exchange System (TIES), however, provides useful information on such contracts. An alternative source of information is found in *ad hoc* databases such as records of technology receipts by industrialized countries, or the Maastricht Economic Research Institute on Innovation and Technology (MERIT), which monitors over ten thousand collaborative ventures worldwide.

^{6/} Arguably, the acquisition of a minority share may well give the foreign investor a controlling stake in the local firm if, for instance, the remaining stock is widely distributed amongst a large number of shareholders.

Evolution over time

14. Arm's-length contracts and other licensing arrangements accounted, until the early 1980s, for the bulk of cross-border technology transfer apart from payments by TNC subsidiaries and affiliates to their parent corporations. A range of mature and standard technologies came on stream during the 1970s and 1980s, enlarging global production capacities and offering new opportunities for cross-border partnerships. However, out of fear of foreign dominance and excessive competition in their industrial sector, and wary of a growing burden of remittances, several Governments imposed several restrictions during the 1970s and 1980s on FDI inflows, ranging from outright prohibition in certain sectors to local content requirements and export obligation. Restrictions were also imposed in several developing countries on foreign technology agreements during this period.

15. International deregulation, domestic liberalization policies and privatization programmes during the 1980s paved the way for a dramatic expansion of FDI flows. The rising trend was compounded by the rapid integration drive among European firms and by the launching of debt-equity conversion schemes in Latin America, as well as by a general recovery from the turmoil of the international debt crisis during the previous decade. Consolidated FDI flows grew from US\$ 5 billion in 1980 to US\$ 78 billion in 1994 (see table 1 in the annex), and they appear poised towards further growth in the next few years.

16. Portfolio investments have staged a phenomenal growth since their first appearance on the world scene in the mid-1980s. However their former appeal as a high-yield financial instrument has been seriously undermined by the Mexican crisis in 1994-1995, and it will probably take considerable time for them to reclaim their place in the portfolios of institutional investors and mutual fund managers.

17. As for technology transfer and non-equity participation, the flow of technology, as measured by payments of fees and royalties by developing-country enterprises, remained relatively stagnant during most of the 1980s. There was, however, a considerable increase in such payments during 1990-1994, though the proportion of such payments to global technology payments still remains only around 15 per cent.

Geographical distribution

18. International collaborative ventures in the manufacturing sector of developing countries have been heavily skewed - and increasingly so - towards East Asia. In 1980, the East Asia and the Pacific region attracted 31 per cent of total FDI, and 53 per cent of total portfolio investment flows. By 1994, the corresponding figures were 55 per cent and 45 per cent, respectively (ratios calculated from table 2 in the annex). Combined FDI and portfolio investment to East Asia grew from 32 per cent in 1987 to 53 per cent in 1994. Over the same period, the comparable shares of Latin America and sub-Saharan Africa regressed from 38 per cent to 25 per cent and from 9 per cent to 2 per cent, respectively.

19. Apart from portfolio investments, non-equity forms of cooperation are more difficult to assess in their evolving scope and magnitude, for lack of detailed information. Yet, sampling evidence clearly underlines, here also, the success of East and South-East Asia in capturing a large share of foreign non-equity participation in developing countries. As for strategic alliances these have so far been of marginal significance in developing countries, which secured less than 5 per cent of global collaborative ventures in R&D between 1980 and 1989.

20. There is growing concern that the increased concentration of FDI flows to a few developing countries will, in effect, lead to continuing reduced flows in less favoured nations particularly in Africa. Until the early 1980s, the ten largest recipients of FDI channelled two thirds of the total flows to developing countries. By 1993, the figure had risen to 81 per cent. Arguably, the composition of the top group has not remained unchanged over the period, notably with China emerging as the principal recipient in the 1980s and rapidly moving to the top position.

21. A relatively new development is the so-called "flying-geese pattern" in Asia, where outward-bound FDI flows are on the rise from several countries and are increasingly aimed at industrialized countries.

Breakdown by industry

22. Different industries rely on different technology bundles, incorporating varying combinations of intangible and tangible components. Consequently, the extent and nature of international cooperation between firms is highly industry specific, as follows:

(a) The textile and particularly the clothing industry is characterized by a relatively high - though decreasing - labour intensity, a rather low level of technological sophistication, and processes that easily lend themselves to fragmentation. The industry is therefore widely dispersed internationally. Inter-firm cooperation mostly takes the shape of non-equity arrangements, and despite restrictive policies under the Multi-Fibre Arrangement (MFA), developing countries contributed 35 per cent of the global textile output and 26.4 per cent of the world production of clothing in 1993.^{7/} With the phase-out of the MFA during the next 10 years, there will be considerable potential for increased technological cooperation and exports of textiles and garments from developing countries;

(b) The production of chemicals on the contrary is a highly capital-intensive industry. The market is dominated by a few OECD-based TNCs, which together account for a large share of total world output. FDI flows to developing countries increased to 18 per cent of production of industrial chemicals in 1993, while non-equity arrangements have been particularly prevalent in the petrochemicals sector. Because of its strong R&D content and the importance of innovation, the pharmaceuticals industry has not grown significantly in developing countries and will be further affected by the agreement on TRIPs;

^{7/} UNIDO database.

(c) At the end of the spectrum, the new "generic technologies" comprising informatics, biotechnology and new materials are often dependent on major investments in R&D. The high technology and specialization characterizing these sectors have fuelled a number of research partnerships in the form of strategic alliances. In a survey of over 4,000 strategic alliances concluded worldwide during the 1980s, MERIT researchers found that 75 per cent of them originated in the field of new technologies. Most of those were technology-oriented, rather than production- or market-oriented, and nearly all, however, involved firms in industrialized countries only.

V. CORPORATE STRATEGIES AND INSTRUMENTS

23. Inter-firm cooperation at the international level results from a convergence of interests between two agents, namely, a foreign firm and a local partner. Local enterprises in host countries rely on foreign participation to alleviate capital shortages or to catch up with international technology levels. In between, Governments often seek to intervene in an attempt to regulate the process for various considerations. The outcome of the strategic game between these three interest groups ultimately determines the form, scope and magnitude of the globalization pattern in the manufacturing sector.

24. Corporate strategies behind FDI fall under four broad categories:

(a) *Market penetration* has always been a prime motivation underpinning FDI flows to developing countries, and particularly to countries with a large population and sizeable purchasing power;

(b) FDI is also an important vehicle to enhance the *efficiency of manufacturing* processes by taking advantage of differentials across countries in the availability of raw materials, or in relative factor prices. This aspect permeates FDI flows to East and South-East Asia, regions that are characterized by a large pool of relatively skilled manpower as well as a strong technological base;

(c) *Trade-supporting FDI* is resorted to when the expansion of sales in a foreign market critically hinges on a close relationship with the client in order to offer customized products, a far-reaching marketing network or attractive after-sales services. The growing outflow of FDI from Asia to industrialized countries appears, to a significant extent, to be driven by such considerations;

(d) Finally, firms may exploit the FDI vehicle to acquire *strategic assets* in foreign countries and to benefit in the process from bundled intangibles such as possible knowledge spillovers and technology or brand names.

25. Non-equity forms of international cooperation at the enterprise level are prompted by corporate objectives such as penetrating a new market, exploiting complementary technologies or accelerating the pace of innovation.

26. The choice between alternative forms of foreign participation by TNCs and other entities is, by and large, determined by the local conditions in the host country. Owners

of intangibles such as technology, know-how or brand name strive to extract maximum revenue out of their assets. Outright sale or licensing is sometimes impeded by valuation problems, due to the necessity to account for possible externalities. Transaction costs, therefore, exert a strong influence on the ultimate shape of the technology transfer. They clearly vary across industries, along with the particular bundle of intangible assets embedded in different technologies. The higher the transaction costs, the stronger the incentive to internalize the exchange by resorting to FDI rather than non-equity instruments. Non-equity participation is also seen as an alternative to FDI by risk-averse investors who limit their stakes in the host country for fear of local conflicts or possible expropriation. By the same token, non-equity participation in small-scale industries is a viable option in terms of containing the risks associated with more volatile partners. Finally, portfolio investments may emerge as an important source of capital flows, though Mexico's experience in 1994-1995 may result in stagnation of portfolio investments for some time and may also lead to increased regulation of such flows in the future. Such capital flows are mostly determined by institutional investors and managers of mutual funds for their attractive yield/risk ratios and the scope they offer for a wide geographical diversification of assets. Their contribution to the globalization trend is essentially that of mobilizing a large pool of finance, which may be particularly valuable to small and medium enterprises in emerging markets.

VI. IMPLICATIONS OF GLOBALIZATION FOR DEVELOPING COUNTRIES

27. The significance of the globalization phenomenon is well documented for *industrialized countries*, and figures prominently in the debate on persisting unemployment in these countries. Indeed the growing impact of the competition from developing countries on the low-skilled segment of the labour market is seen as a major factor behind structural job losses in the blue-collar category. It is estimated that import competition from developing countries has reduced the demand for low-skilled labour in industrialized countries by as much as 20 per cent over the past three decades. However, the actual interaction between foreign trade and investments is very complex, and OECD-specific factors such as productivity growth and technological change, as well as migration, obviously loom large behind structural unemployment patterns. At any rate, policy options in industrialized countries are essentially a relative depreciation of low-skill wages, a drive to higher-skilled categories and a rapid shift to service activities.

28. The implications for *developing countries* are no doubt far-reaching, although difficult to assess with accuracy. The ultimate gains from increased trade integration are expected to be unevenly distributed in the developing world. Likewise, the globalization of manufacturing processes stands to raise both challenges and opportunities in developing countries. Indeed, challenges may often be turned into opportunities, provided the recipient country is able to wisely manage investment and technology flows. Some of the major issues for developing countries and for several transition economies include the following:

(a) A *greater integration in the world economy* is undoubtedly the major objective of international cooperation between firms. Greater integration, in turn, entails greater allocative efficiency through choice of factors on a global scale, a fuller exploitation of

local comparative advantages and the ensuing rationalization of manufacturing processes. It also suggests greater distributive efficiency by virtue of the simultaneous expansion of external markets and increased export orientation;

(b) *Another important objective is gaining easier access to new technologies*, and a reducing the time lag between technological innovation and its penetration into developing countries. Technology is increasingly related to greater intangible content by means of skills, know-how, or organizational requirements. Thus, its effective transfer to developing countries today calls for a close partnership between owners and users;

(c) *The broader availability of private development finance* is an important feature of FDI flows and portfolio investments alike. FDI alone accounted in 1992 for 4.9 per cent of the total gross fixed capital formation in developing countries, although the figure varies greatly across regions, from a low of 0.5 per cent in West-Asia to a high of 5.5 per cent in South, East and South-East Asia.^{8/} Private capital flows now exceed, by far, official grants and aid (except in sub-Saharan Africa). They offer real financing opportunities to small and medium enterprises as well as for large infrastructure projects characterized by a high incremental capital-output ratio;

(d) Aside from scope and magnitude, *quality considerations* are also of the essence for a comprehensive assessment of capital inflow. Clearly, the debt-equity swaps in Latin America, or privatization-induced capital flows to Africa, do not carry the same benefits as new investments in greenfield projects. Similarly, FDI that is attracted by the sheer market size of the host country merely exploits a natural endowment, while offshore manufacturing for re-exportation thrives on the progressive accumulation of physical and human capabilities. Finally, while a liberal regime is expected to trigger FDI inflows and give faster access to foreign technologies, it may also inhibit a crucial technological deepening process at home. Japan and the Republic of Korea are outstanding examples of countries that closely monitored capital inflows and avoided an adverse crowding-out effect on their domestic market;

(e) There are fears of a looming "*poverty trap*" where the relative affluence of gradually industrializing countries will translate into higher wages and eventually result in the relocation of manufacturing to lower-income countries. The evolution of investment patterns in Asia is often cited as evidence to support this view. The argument overlooks the fundamental fact that real wage increases *per se* are not relevant, unless they outpace the concomitant rise in productivity. Germany boasts some of the world's highest wages in manufacturing, thanks to world-class productivity figures in the sector. A more likely scenario is thus a global equalization of factor prices that will eventually reach out to traditionally low-mobility factors such as labour, and real wages in developing countries will be allowed to rise at par with labour productivity gains;

(f) Technological progress in the OECD countries is seen as potentially increasing the technological gap with developing countries. Technologies are likely to become increasingly capital-intensive, and even "knowledge-intensive", thus creating entry barriers

^{8/} Data from the United Nations Conference on Trade and Development.

that will restrict the scope for inter-firm cooperation except to a close group of advanced countries. The emergence of regional clusters such as the North-American Free Trade Area and the European Union is sometimes perceived as a threat to a true globalization that would create opportunities for developing countries as well. This may be far-fetched. The highest growth rates have been experienced in countries that did not belong to any strong regional grouping, and the gradual shift in some regions towards capital-intensive processes creates, on the contrary, opportunities for others to exploit their comparative advantages in low-skilled labour and simpler technologies:

(g) Finally, an overriding concern is the *impact on the balance of payments* of a lax attitude *vis-à-vis* FDI and portfolio investments. Capital inflows exert a direct effect under that same heading of the balance of payments, and an indirect effect on a country's current-account position through outflows of incomes and remittances, while the end effect will be balanced either by increased exports, or else at the cost of a deteriorating foreign exposure. The electronics and electrical machinery sub-sector has proved to be the driving force of the impressive growth of manufacturing in Malaysia. Whether such a compromise is sustainable depends on the structural factors of the economy.

VII. POLICY RESPONSES

29. International cooperation among manufacturing enterprises evolves in what is usually a seller's market. On the one side, there are powerful TNCs while, on the other, there are a large number of developing countries and transition economies engaged in competition to capture a fair share of foreign participation and technology transfer. The bargaining power of the recipient is *a priori* limited, but the attractiveness of the investment or other forms of participation in a country can be considerably enhanced by a conducive policy environment, for example:

(a) At the *international level*, despite efforts to increase FDI and foreign participation in particular countries, it is likely that the prevailing competition for international capital and technology inflow will continue. Attempts to increase coordination in this respect may well result in boosting the importance of purely locational assets and initial endowments, leaving disadvantaged regions with dim prospects;

(b) At the *macro-economic level*, sound monetary and fiscal policies will undoubtedly be considered favourably by foreign investors. Moderate inflation and stable exchange rates contribute to reduced investment risks, stronger productivity growth and higher capital yields altogether. Fiscal restraint in turn allows inflation to be contained within acceptable levels. Tariff reduction and import liberalization in general pave the way for a spontaneous export drive, compatible with the rules of the World Trade Organization (WTO). In transition economies, the creation of a legal environment to defend property rights is also part of the necessary pre-conditions for increased capital flows;

(c) At the *industrial subsector level*, *ad hoc* measures aimed at regulating capital flows have proven, by and large ineffective as they often draw a rapid corporate response in the form of substitute instruments. Policy support can basically follow two courses:

- (i) *Functional interventions*, which are applicable across-the-board. They include, in general, the provision of a so-called enabling environment featuring adequate infrastructure, utilities, institutional support, banking, insurance and other business services and, most importantly, a comprehensive human resource development programme. They also relate to measures such as promotion of investment, non-restrictions on performance or ownership requirements, guarantees and arbitration;
- (ii) *Selective interventions* on the contrary target specific industries or segments of the economy. When aimed at promoting capital inflow or technology, they can encompass screening and selectivity, perhaps outright prohibition in certain areas, discretionary conditions on FDI incentives and operations, performance requirements for certain activities, and targeting of foreign partners.^{9/}

30. The recourse to Government intervention, particularly of a selective kind, in the market requires careful justification. Functional interventions are said to be "market-friendly" in the sense that they basically circumvent market failures such as information gaps that prevent capital markets from operating efficiently, a risk-averse behaviour hindering the accumulation of much-needed venture capital, and the presence of externalities arising out of knowledge spillovers and technological linkages.

31. Perhaps, a cogent argument for a sensible degree of Government selectivity can be found in the limited resource mobilization capacity that characterizes most developing countries. Disadvantaged regions continue to be excluded from the mainstream of international capital flows. To attract FDI, they can endeavour to outbid competitors by offering more generous packages of incentives, but the ultimate cost-effectiveness of this strategy may be seriously undermined. The only alternative appears to concentrate scarce domestic resources on those industries where measurable competitiveness gains can be achieved, thus extending their international attractiveness. The combined effects of domestic policies and foreign capital may then create dynamic comparative advantages in the host country, which could not have emerged otherwise.

VIII. QUALITY PRODUCTION AND TECHNOLOGY INPUTS

32. Quality considerations must constitute the main criteria for developing countries when assessing the implications and opportunities for a more effective integration of their industries into international production schemes. Quality inflows of capital and/or technology are those characterized by a direct impact on the production function of local firms, besides a clear export-orientation and the reliance on dynamic comparative advantages.

^{9/} Background Paper V/2, Sanjaya Lall, "Governments and industrialization: The role of policy interventions."

33. Inflows of capital and technology of this nature contribute not only to the accumulation of technological capabilities in the host country, but also bring about increased technology deepening and broadening, and generate in local industry a dynamic process of graduation towards more sophisticated production patterns and an increased exposure to international competition. As developing countries progress along the path to industrialization, their integration into global manufacturing processes will see a marked change in the structure of their capital and technology inflow.

34. At an early stage inter-firm cooperation is motivated by such static advantages as domestic market size, availability of inputs or relative factor prices, at the intermediate stage of offshore production capitalizes on acquired advantages such as skilled labour or infrastructures and at the ultimate stage the host country is seen as a convenient platform for the re-export of increasingly sophisticated technologies. Obviously, different countries stand at different levels and stages. China and India still attract sizeable foreign investment by virtue of the sheer size of their internal markets, while the newly industrialized countries of Asia are now actively engaged in export-oriented R&D. However, a regular pattern seems to emerge from diverse experiences. If history is any guide, it would indicate a desired trajectory for developing countries to follow. The first issue is for a developing country to assess its present situation *vis-à-vis* capital inflows, and analyse the requirements for making a gradual transition towards "higher quality" technology transfer.

35. The actual form of inter-firm cooperation, whether through FDI or alternative non-equity forms, would depend on the depth of local technological absorptive and adaptive capabilities *vis-à-vis* the degree of sophistication of imported technologies and the bargaining power vested in the recipient country. Finally, an important issue is the *role of Governments* in facilitating the process.

IX. PROACTIVE APPROACH TOWARDS GLOBALIZATION

36. A proactive approach with respect to the globalization of industry needs to take account of several factors that are often sequential. First, while domestic economies become increasingly integrated in the global market-place, the success of any manufacturing venture is critically dependent on its competitiveness. Second, competitiveness is determined by a series of variables. Some of them are under the control of the enterprise, while some fall under the purview of external agents: other firms, business partners, providers of related services and, ultimately, the Government in various capacities. Third, any strategy enhancing competitiveness must take the shape of a multi-agent decision-making process. Typically, the Government adopts an industrial policy on the basis of its perception of industry's prospects and constraints. The supply response, or the reaction of the firms to the policy signals, is aimed at taking advantage of the new policy environment. In the process, new prospects and constraints emerge, calling for appropriate adjustments by policy makers. The outcome eventually leads to the formulation of mutually consistent policies and business plans to strengthen industrial competitiveness. In developing countries marked by weak organization levels and incomplete flows of information, the procedure can be considerably improved by

fostering convergence mechanisms between Government and industry. Whether Governments should go as far as targeting subsectors or specific enterprises for special incentives or support is perhaps a controversial issue. Uncompromising "free marketers" contend that the average performance of Governments in "picking winners" is rather mediocre, although proponents of the "selective interventionism" line argue that the point is not so much to select winners as to create them.

ANNEX

Tables

	1970	1980	1987	1988	1989	1990	1991	1992	1993	1994
East Asia and Pacific	2,133	13,145	6,719	17,827	25,412	29,811	34,080	51,583	74,144	90,433
Europe and Central Asia	622	17,056	10,235	6,118	12,094	18,467	21,281	35,858	41,084	40,642
Latin America and the Caribbean	4,184	30,179	13,893	15,365	7,936	20,347	29,877	32,071	63,499	43,301
Middle East and North Africa	1,152	8,417	12,533	11,245	9,505	8,653	11,338	8,119	7,199	12,211
South Asia	1,329	6,371	10,373	12,515	11,390	9,569	11,831	8,286	11,509	18,841
Sub-Saharan Africa	1,644	15,146	14,566	14,279	18,090	16,606	16,047	16,978	15,675	21,897
All DCs	11,063	90,314	68,537	77,447	84,493	103,489	124,707	153,031	213,110	227,323

Source: World Debt Tables 1994-1995

	1987				1994			
	Debt	FDI	Portfolio	Grants	Debt	FDI	Portfolio	Grants
East Asia and Pacific	(187)	4,509	405	1,992	27,350	42,717	17,585	2,781
Europe and Central Asia	8,702	1,302	79	151	20,015	11,134	2,549	6,944
Latin America and the Caribbean	5,878	5,791	278	2,146	11,465	18,875	10,438	2,523
Middle East and North Africa	8,429	1,160	-	2,964	6,850	2,107	350	2,904
South Asia	7,384	410	-	2,580	7,460	845	7,726	2,810
Sub-Saharan Africa	6,081	1,405	-	7,080	6,331	2,241	803	12,522
All DCs	36,287	14,576	761	16,913	79,471	77,918	39,450	30,484

Source: World Debt Tables 1994-1995