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**FOREIGN DIRECT INVESTMENT FLOWS TO
DEVELOPING COUNTRIES:**

RECENT TRENDS, MAJOR DETERMINANTS AND POLICY IMPLICATIONS

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PREFACE

This report is part of the economic research services programme that the Regional and Country Studies Branch of UNIDO has developed in response to frequent requests for analyses and information of immediate relevance to industrial policy-making in individual developing countries. Through this programme, the Branch has been regularly assisting policy-makers in developing countries to monitor pertinent developments at the national and regional levels, especially as concerns industrial policies and programmes in other countries, emerging technological trends, prospective demand changes in national and international markets, as well as relevant corporate strategies. The monitoring of FDI trends has always been a key area of this research programme.

The present study is organized as follows. Following a conceptual introduction in the first chapter, chapter II reviews recent trends in FDI flows to developing countries in quantitative terms. Emphasis is put on overall magnitudes involved; regional distribution; sectoral and branch composition; and the increasing role of so-called non-conventional forms of FDI (viz. intra-developing country investment flows) and the emergence of small and medium size enterprises as foreign investors. Chapter III deals with the major qualitative determinants of FDI in developing countries, both on the "supply side" (i.e. the conditions prevailing in capital exporting countries and, above all, recent technological developments) and on the "demand side" (i.e. the relevant conditions, capabilities and policies in the receiving developing countries). Chapter IV presents some key policy recommendations for developing countries which are considered crucial for any attempt to attract an increasing share of the rapidly growing global FDI flows.

This study has been prepared by staff of the Regional and Country Studies Branch, based on inputs provided by Sanjaya Lall and Geoffrey Hamilton as principal consultants and Rosemarie Vala as research assistant.

TABLE OF CONTENTS

	Page
List of Tables	iii
List of Annex Tables	iii
List of Abbreviations	iv
SUMMARY	v
I. INTRODUCTION	1
II. RECENT TRENDS IN FDI FLOWS TO DEVELOPING COUNTRIES: CHANGES IN MAGNITUDE AND STRUCTURE	3
1. Global FDI flows	3
2. Share of developing countries	4
3. FDI as share of national aggregates in developing countries	7
4. Concentration among developing countries	7
a. Latin American countries	10
b. Asian countries	11
c. African countries	11
5. The new role of European CMEA countries	15
6. Sector and branch composition	15
7. New forms of investment	19
8. Role of investors from developing countries	20
9. Role of small- and medium-size enterprises (SMEs)	23
III. MAJOR QUALITATIVE DETERMINANTS OF RECENT FDI FLOWS TO DEVELOPING COUNTRIES	26
1. The "supply side" of FDI	26
a. Conditions in capital exporting countries	26
b. Technological and organizational factors	27
2. The "demand side" of FDI	30
a. Developing country policies towards FDI	30
b. Economic conditions in developing countries	33
c. Industrial capabilities in host countries	35
IV. POLICY IMPLICATIONS FOR DEVELOPING COUNTRIES	41
1. Entry conditions	41
2. Attraction of small- and medium-size enterprises (SMEs)	42
3. Promotion of local enterprises	43
4. Development of industrial capabilities	46
ANNEX	48
Developing Country Policies Towards FDI - Selected Case Studies	
1. Singapore	48
2. Mexico	51
3. India	52
4. Ghana	54
Statistical Annex	57
Bibliography	62

LIST OF TABLES

	Page
Table 1. FDI outflows from five major home countries, 1981-1988	3
Table 2. FDI outflows from OECD to developing countries, 1981-1988	5
Table 3. JAPAN: Outward flows of FDI, 1987-1988	6
Table 4. FEDERAL REPUBLIC OF GERMANY: Outward flows of FDI, 1981-1988 (selected years)	6
Table 5. UNITED KINGDOM: Outward flows of FDI, 1981-1988 (selected years)	6
Table 6. Share of FDI in gross fixed capital formation in selected developing countries, 1980-1988 (selected years)	8
Table 7. FDI inflows to least developed countries, 1980-1986	9
Table 8. FDI inflows to selected Latin American countries, 1981-1987	10
Table 9. FDI inflows to selected Asian countries, 1981-1987	12
Table 10. FDI inflows into selected African countries, 1981-1987	14
Table 11. Japanese FDI flows to developing regions, by economic sector, 1985-1988 (selected years)	16
Table 12. Number and geographical distribution of foreign affiliates of small and medium-sized transnational corporations based in 18 developed countries by country of origin and by sector of parents, 1986-1987	24
Table 13. Indicators of investments in human capital in selected NICs (selected years)	36
Table 14. Formal technological efforts in selected NICs and Japan (selected years)	37

LIST OF ANNEX TABLES

Table A-1 FDI flows to developing countries, 1981-1988	57
Table A-2 Indicators of the importance of foreign affiliates in manufacturing production and exports of developing countries (selected years)	58
Table A-3 Inward stock of foreign direct investment in services, selected developing countries and territories (selected years)	59

LIST OF ABBREVIATIONS

- ASEAN - Association of Southeast Asian Nations
- CMEA - Council for Mutual Economic Assistance
- EDB - Economic Development Board (Singapore)
- EEC - European Economic Community
- EPZ - Export processing zone
- FDI - Foreign direct investment
- FERA - Foreign Exchange Regulation Act (India)
- GNP - Gross national product
- IFC - International Finance Corporation
- ILO - International Labour Office
- IMF - International Monetary Fund
- JETRO - Japan External Trade Organization
- LDC - Least developed country
- MIGA - Multilateral Investment Guarantee Agency
- MITI - Ministry of International Trade and Industry (Japan)
- NFI - New forms of investment
- NIC - Newly industrializing country
- PEMEX - Petróleos Mexicanos
- OECD - Organization for Economic Cooperation and Development
- R&D - Research and Development
- SDR - Special drawing right
- SME - Small- and medium-size enterprise
- TNC - Transnational corporation
- UNCTC - United Nations Centre on Transnational Corporations
- UNESCO - United Nations Educational, Scientific and Cultural Organization

SUMMARY

Rarely has there been such a period as the present, when the activities of transnational corporations (TNCs), and the flows of foreign direct investment (FDI) which they generate, have been of such universal interest. In the recent past, this interest was centered on developed market economy countries, in which most of the world's FDI originates and where a majority of these investments are made, and on those relatively few developing countries which attracted substantial FDI flows. Now, however, it has been generalized to an increasing number and to almost all groups of countries. Today, virtually all developing countries as well as the CMEA countries are attaching a new importance to FDI thereby creating for the first time, an almost universally shared belief in the positive and valuable contribution FDI can bring to economic development.

A number of political and economic reasons account for this growing convergence of opinion towards FDI but surely chief among these is the desire both of developing countries at large and of CMEA countries to integrate themselves into an increasingly globalized economy. The abandonment of an inward-looking economic strategy and the adoption of a more outward-oriented approach is by no means a recent development but it is now being pursued with greater vigour and pace by many more countries. Among the many implications of these developments is the intensified competition between various groups of countries to attract these flows and thereby to either enter into, or consolidate their position within an increasingly integrated world production, trading, and investment system.

FDI flows to developing countries: changes in magnitude and structure

Total world outflows of FDI in 1988 were over \$115 billion. Increases in FDI flows over the last three decades have been almost continuous and, in some years, prodigious. For example, the total outflow of FDI for 1989 has been provisionally estimated at US \$180 billion which would imply an increase of 57 per cent over the previous year. In the previous two decades, there have been just two points - in the mid 1970s and in the early 1980s - at which this pattern of continuous increase in FDI outflow was broken. In the early 1980s, this was almost totally due to the fall in FDI outflows from the USA. Thereafter, on a world level, FDI flows took off, again reaching record levels. Total worldwide outflows of FDI tripled between 1984 and 1987, increasing 39 per cent in 1985, 58 per cent in 1986 and 46 per cent in 1987.

There has been a clear tendency in recent years for FDI flows to become more concentrated on a small number of developed countries both as sources and as recipients of investment. In 1987, only five countries - USA, UK, Japan, FRG and France - were the source of 80 per cent of all FDI outflows and the target of 60 per cent of all FDI inflows. Many factors are responsible for this trend, including corporate strategies to redeploy production behind protection barriers; increased intra-industry co-operation, particularly in

high technology areas; and, as a regional phenomenon, the planned creation of the EEC unified market in 1992 which forces companies to look out for competitive locations in gaining access to the large European Economic Community (EEC) market.

Conversely, the share of developing countries in world FDI inflows has declined rapidly in recent decades. The developing countries received a total of \$11.2 bn in FDI flows from the OECD countries in 1988. This is somewhat better than the low point of 1985, when these countries received barely over one half of this - \$6.7 bn - but rather poor when compared with 1981, when they attracted \$17.2 bn in FDI inflow.

In the 1960s, developing countries absorbed about 40 per cent of international FDI flows; during the 1970s, this figure fell to around one third of the global total. The early 1980s saw again an increase in developing countries' share of total FDI flows. But thereafter, developing countries as a whole failed to capture any significant share of the great upsurge in world FDI flows which took place, in particular, after 1984.

In general, foreign investment has in past decades tended to be directed towards relatively few developing countries, many of which have a comparatively high per capita gross national product. Over the years, this trend has become even more accentuated.

- In 1971, 20 developing countries accounted for almost two thirds of the total stock of FDI in developing countries. The share for these same countries increased to nearly three quarters in 1978. Today, just 18 countries and territories account for 86 per cent of the flow of FDI to the developing countries as a whole.
- As regards the least developed countries, their position among developing countries, as a whole, has further deteriorated. In 1980, these countries, received almost 3 per cent of total FDI to developing countries. In 1986, they received just 1.4 per cent.
- In regional terms, it is clearly the Asian developing countries which have recently managed to attract the lion's share of FDI flows. The net inflow of FDI (i.e. after subtracting profit remittances) in 1981-87 totalled \$21 billion for all non-oil exporting developing countries, with the following regional breakdown: -\$10.5 billion for Africa; \$1.6 billion for Latin America; \$5.3 billion for European developing countries; \$6.0 billion for non-oil Middle East countries; \$18 billion for Asia.

As regards the sectoral breakdown of FDI flows to developing countries, a general upsurge of the share of FDI in services is noticeable. In many developing countries, the fast growth in manufacturing has, to some extent, outstripped the capacity of the tertiary sector to service this expansion. Strains are found in almost all components of infrastructure, including roads, railroads, power and water supplies, posts and telecommunications. As in many cases these service bottlenecks have dissuaded foreign companies from further investment many developing countries have increasingly permitted FDI inflows in service industries.

As to the branch composition of FDI in the developing countries no aggregate data are available nor are easy generalizations possible. Foreign investment is spread over a wide range of branches with differing patterns emerging in different countries according to their resource endowment, level of development and policy priorities. The evidence available from country case studies suggests that chemicals, electronics, clothing and food processing are among the branches which have received particularly large amounts of FDI. A general qualitative trend is emerging, however, for FDI to become technologically more ambitious. Whereas the "first round" of North-South industrial redeployment involved primarily labour-intensive goods requiring only simple production technologies (e.g. in clothing production or simple consumer electronics), worldwide industrial restructuring is now spreading into many additional product groups in branches such as transport equipment, electrical machinery, machine tools and others. This technological upgradation of FDI to developing countries is a gradual long-term process which will affect only a relatively small group of more advanced developing countries in the short run. Labour-intensive, low technology industrial relocation will remain significant in many branches and for a wide range of developing countries.

During the eighties, investors from developing home countries have increasingly left their marks on the global FDI scene. While total stocks of FDI held by firms from developing countries are not very large at present, they are growing rapidly. This so-called Third World multinationals phenomenon is significant from the viewpoint of industrial relocation in the future, as it involves the transfer of industrial activity from the more advanced newly industrializing countries (NICs)^{1/} to other developing countries, and as it often involves lower technology, smaller scale activities that are less frequented by TNCs from advanced industrial countries. Even where the Third World ventures are in skill-intensive "modern" activities, they may offer advantages in their greater willingness to take minority positions, source local supplies, train local workers and set up small-scale operations.

The increasing role of small- and medium-size enterprises (SMEs) in FDI flows is another notable trend. SMEs have now firmly begun to enter the international market. In most cases, SMEs invest abroad for the same reasons as large firms. As with large firms, they need to be close to the markets they are serving. Local production is necessary when tariff barriers exist that obstruct their imports. Also, those SMEs which supply components and other parts to large enterprises follow their clients abroad as they themselves internationalize their activities. Many TNCs now have, through the system of "partnership sourcing", rather close relations with their suppliers. Instead of using many small suppliers, they tend to choose a few and contract with them to supply goods produced to the highest standards of design and production and delivered to strict schedules. By using these

^{1/} The term "NICs" is used extensively in the literature and in statistical publications to describe developing economies, be they countries, provinces or areas, where there has been particularly rapid industrial growth. It does not imply any political division within the ranks of developing countries and is not officially endorsed by UNIDO.

closer relations, supplier firms can (or, indeed, have to) follow their clients when these establish ventures abroad, knowing that their products will have a ready-made market. This pattern has recently been observed, above all, in the case of Japanese investment in Southeast Asian countries.

Interest in the role of SME in FDI flows derives from the potential special contribution these companies can make to developing countries. Their relatively recent arrival as investors provides a new source of foreign capital for these countries. Their assumed specific characteristics - i.e. their greater flexibility, relatively labour-intensive technologies, greater adaptability to local economic conditions, capacity to serve small communities - could make them more suited to the conditions of most developing countries than their large TNC counterparts. Therefore, for policy makers in developing countries, the FDI flows that SMEs can provide may constitute a valuable supplement to flows of more conventional types of TNCs, which have been reducing their involvement in certain regions of developing countries in recent years.

The emergence of European CMEA countries as FDI host countries is among the most significant recent trends in FDI flows. Most European CMEA countries are at present in a phase of transition and restructuring within the overall context of a major shift in industrial strategy and policies. The economic reform programmes are aimed at increasing the reliance on market forces; promoting private industry; enhancing the flexibility of the economic system; and adjusting the economic structure to better utilize the countries' comparative advantages. FDI is assigned a major role in most of the economic reform programmes in terms of bringing in modern technology and raising competitiveness and export earnings. To this end, many European CMEA countries have taken legal steps to create a climate more conducive to attracting foreign investment. In response to these reform programmes and the new policy framework for FDI, actual amounts of FDI into European CMEA countries up until the end of 1989 have grown rapidly. In absolute terms, however, they have remained relatively small. They appear not to have substituted so far for FDI to developing countries on any significant scale.

Major qualitative determinants of FDI flows to developing countries

As the OECD countries are both the prime destination of FDI flows and their predominant source, the economic performance in the various OECD countries and in particular structural changes and technological innovations in their industries clearly condition the amount and composition of FDI, including FDI to developing countries. As regards the current nature of structural change in OECD countries, the following characteristic features emerge:

- First, it is increasingly driven by advanced technology, based on a series of technological changes (such as information technology, robotics, new materials, bio-technology) which require a close interaction between basic science, research, engineering and production, corresponding supplies of skills and worker training, and a complex support structure of supplies, services and information networks and institutions.

- Second, the role of services vis-à-vis manufacturing is growing, but these services are largely new and high tech in nature, often quite capital intensive, and, in many segments, highly linked to manufacturing activity.
- Third, a tendency is observed towards the "descaling" of many industrial activities (after a long period of capital-intensive specialization that led to greater economies of scale and larger plant/firm size) and the emergence of small and medium sized enterprises as a highly dynamic innovative segment of the industrial economy.

As far as FDI is concerned, these structural changes point to an increasing sophistication of investments in manufacturing; to a growing share of services in FDI, again with large components of high levels of technical and skill requirements; to the possibility of attracting efficient investments on a smaller scale than earlier possible; and, finally to the potential for utilizing the small and medium enterprise sector in developed countries as source of technology, skills and capital.

The impact of recent technological innovations on FDI flows deserves special attention. World industry is in the throes of a major technological revolution which involves a shift of the ruling "techno-economic paradigm". This affects not just technologies or organizational structures in a narrow sense, but the entire way in which the productive system is set up, the "common sense" which prevails in engineering or managerial terms, and the complex of supporting service, infrastructural and training activities. Among various changes, the ones most relevant for FDI patterns are: reductions in production costs, particularly in the labour components of costs; new forms of organization at the firm and plant level; new patterns of sourcing for components and services, with proximity, flexibility and speed of response becoming of dominant importance; and new profiles of labour skills.

A number of important implications for FDI can be drawn from these emerging technological and organizational patterns. First, the diminishing significance of inter-country differentials in labour cost as the key investment incentive means that some activities previously attracted to developing countries will no longer need to relocate away from high-wage developed countries. This does not mean that traditional forms of low-wage seeking FDI will taper off completely, and that the less-industrialized developing countries will not continue to attract the simpler forms of industrial relocation. However, over the medium- to long-term the most dynamic elements of relocation will not consist of simple labour intensive activities.

Second, to the extent that future FDI flows will be based on the more advanced technologies and new organizational approaches, they will essentially be determined by (i) the availability of high levels of skills relevant to specific areas of production, design or management; (ii) the availability of a variety of supporting firms providing components, services and technical backup of various kinds; and (iii) the existence of an efficient power, transport and particularly telecommunications infrastructure. In the developing world, this will presumably strengthen the tendency of FDI to

concentrate on locations which are industrially relatively advanced, have relatively high levels of income, are well managed in economic terms and have their own technological dynamism.

On the FDI-receiving side, changes in government policies of developing countries towards FDI in recent years have confirmed and strengthened an apparent trend, begun in the early 1980s, towards liberalization of inward FDI regulation. Rather than seeking to exercise new controls over and restrictions of FDI, countries now seek primarily to encourage inward FDI by reducing obstacles, restrictions and requirements, and by offering guarantees and incentives as essential elements of new, liberal investment codes. This widespread move to attract FDI marks a change from the 1960s and 1970s when foreign investors in some countries and in the international debate were regarded with great caution, their superior technology and skills often taken to be threats to indigenous development and their integrated production structure to be channels of transfer pricing and tax evasion.

This trend to more inducing policies constitutes an initial necessary condition for the encouragement of FDI inflows to developing countries, but it is by no means a sufficient condition. Nor will generous fiscal and financial incentives have much of an effect as they do not loom large in most investors' location decision and tend to cancel themselves out between different countries. It may be safely concluded therefore that policy reforms on FDI by themselves are unlikely to have much impact on industrial relocation in developing countries. Any noticeable impact must result from a combination of appropriate policies with broader economic, technological and strategic considerations.

In general, FDI flows are extremely sensitive to economic conditions and economic policies in recipient countries, and the events of the 1980s have brought this sensitivity into sharp focus. The variations between developing countries in attracting FDI arise, in this context, from differences in their macroeconomic management (especially of external debt, but also of internal inflation and exchange rates); their other economic policies (price controls, taxes, attitudes to the private sector, intellectual property rights, labour laws and conditions, stability of incentives and so on); their political stability; and their anticipated economic and export performance. The diminishing flow of FDI has been directed increasingly at countries that had a stable, transparent and predictable environment with good prospects for overseas investors to earn and repatriate healthy returns and to integrate the new locations into their global strategy as determined by technological and market factors.

However, no amount of policy reform directed at foreign investors (better investment codes, faster procedures, liberal treatment, tax holidays) or at macroeconomic variables (inflation, wages, exchange rates) is likely to offset structural economic weaknesses. It is the overall industrial capabilities at the country level more than anything else which decisively determine FDI inflows. The industrial capabilities most relevant to the attraction of FDI are those that directly determine the skills available to prospective investors, as well as those affecting the efficiency of local

suppliers, consultants, service firms and the physical and technological infrastructure. In a general sense, therefore, the level and efficiency of development of the domestic industrial structure, including a thriving locally-owned sector and a network of supporting public or private institutions, indicates the availability of the capabilities that can allow foreign investors to set up competitive modern facilities.

Policy implications for developing countries

In its final chapter, the present report outlines some policy implications for developing countries in the following areas: improvement of entry conditions for FDI; attraction of small- and medium-sized investing companies; overall development of industrial capabilities and promotion of local enterprises.

Host countries have to do more than adopt a hospitable attitude to foreign investors. Apart from offering a stable and promising economic and political environment, governments should pay close attention to the regulatory framework and procedures adopted towards prospective investors. Among entry conditions that particularly affect FDI are: controls on foreign exchange transactions (governing import of inputs and payments of dividends, royalties or principal); investment incentives (which may cancel out between countries but still affect the choice between them); subsidies for training or borrowing; effective rates of protection against imports; access to world-price inputs (critical for export-oriented activities); and freedom to choose ownership shares. The most significant of these conditions in the context of future FDI trends are likely to be those concerning foreign exchange transactions, access to world price inputs and the freedom to choose ownership shares.

In return for granting privileges, increasing use could be made of "performance guarantees", tying investment approval to agreed actions to raise local skills, undertake local research, buy local inputs or export specified amounts. Performance guarantees are an increasingly common feature of FDI negotiations even in developed countries, especially when very large projects are involved, and it is appropriate for developing countries to build them into their bargaining strategies.

In view of the potential special benefits offered to developing host countries by small- and medium-sized foreign investors, the latter should be made a particular target for future investment promotion efforts. The main problem in attracting SMEs from both developed and developing countries lies in imperfections in information, skill and insurance markets. Thus, SMEs tend to be much less familiar with operating conditions, both economic and political, in foreign countries than large firms, which accounts for their investments in neighbouring countries or those with ethnic or cultural connections. They find it costly to collect, analyse and compare data on different possible locations. They also find it more tiresome to cope with unfamiliar bureaucracies and legal requirements. If they do find suitable locations, they generally find it hard to spare the high-level manpower to send (in adequate quantity) to ensure the success of the venture.

They may also find it difficult to recruit the necessary manpower from their home country or other labour markets. Finally, they tend to be more risk-averse than large firms because the potential cost of failure abroad may pose a much larger risk to their overall profitability than to a large firm.

There are various possible ways to overcome these market imperfections. Many developing countries have set up investment promotion offices in major home countries to provide information and assistance to prospective investors. As a significant proportion of SMEs come to developing countries as ancillaries to major TNCs, one possible focus of SME promotion could be those large investors who then in turn induce their existing suppliers to relocate with them. Furthermore, since the most likely route for SMEs entry is by joint ventures, an aggressive policy of sending out local firms to seek prospective partners is likely to yield much higher dividends than a more passive approach (of advertising or holding general meetings).

The development of overall industrial capabilities is a crucially important area in all efforts to attract FDI flows. The objectives are clear: to improve worker, technical, scientific and managerial skills; to promote technological activity; to develop a system of industrial support, with suppliers, service firms and R&D institutes; and to provide an institutional structure to embody such a system. The most important element in this will in most cases be the strengthening of the human resource base.

The "support system" for industrial development needs not just the provision of skills and technology in a generic sense or in specific enterprises, but the coherent development of capabilities in whole sets of linked activities that complement each other. Governments must thus aim to promote strategic networks of activities rather than very specific ones, and the promotion should be in the form of a package.

To be sure, capability development is an extremely difficult task which is why even advanced industrial countries differ so much among themselves in this respect. But countries can move in a gradual, incremental way rather than attempt to do everything at once. Their planning and implementation capabilities are limited in exactly the same way as their industrial capabilities, and must be slowly improved and deployed economically. It is imperative, therefore, to start modestly and with lower degrees of selective intervention at the early stages, and to increase the policy burden only as the administrative learning process builds up.

It is also clear that the establishment of an efficient interlinked industrial system is a long-term effort involving not only difficult policy choices but also substantial financial resources beyond the reach of many developing countries. These countries have to succeed in attracting FDI before such an overall system is in place - and indeed, FDI is often sought with a view to contribute to its creation, i.e. as a means to enhance overall industrial capabilities. For these developing countries, it would be essential to concentrate efforts in the beginning on entrepreneurship development. Without the stimulation of efficient local entrepreneurship in

different fields of industry, the attraction of foreign investment, in particular in areas of higher technologies, may be bound to fail. Firstly, the establishment of joint ventures is contingent upon the availability of attractive local partners. Secondly, small-scale companies often act as important suppliers of specialized parts and components which can be an additional investment incentive for foreign companies. Thirdly, and most importantly, it is only through domestic entrepreneurship that significant spread effects can be generated and utilized for overall industrial development.

I. INTRODUCTION

This study is concerned with the emerging patterns of international redeployment or relocation of industrial capacities as they affect developing countries. The main focus is on foreign direct investment (FDI) which in past decades, especially undertaken by large transnational corporations (TNCs), has been the most potent agent for industrial relocation. These enterprises are the dominant producers in the developed countries and are also the leading sources of technological change and the main exporters of products and services.

As the role of trade in global industrialization has grown, so has the internationalization of production. An increasing share of industrial output is accounted for by firms that operate in several countries. Foreign investors are not the only agents of industrial relocation as productive capabilities in the forms of skills, information and technological knowledge flow across national boundaries in many different ways. However, the current pace of technological advances and the recent changes in industrial policies in the developing world all point to an increasing role for FDI in industrial relocation.

In a broad sense, the location of industrial activity is the outcome of five fundamental parameters: (i) the technological characteristics of the production process; (ii) the resource requirements and availabilities; (iii) the demand potential and accessibility of different markets; (iv) the government policy framework; and (v) the physical and institutional infrastructure. A major driving force affecting these parameters is technical change which in turn is largely induced by international competition. Hence the determinants and options for entrepreneurs in taking investment decisions are changing as well. Indeed, globally a growing competition is noticeable between national economies and regions in terms of attracting investment through various incentives and measures which influence these determinants.

There is a tendency in the literature to simplify the issue by focusing on macroeconomic conditions and policies as the only determinants of FDI: thus, it is assumed that if economic stability were achieved, prices were "got right" and a favourable stance to foreign investors adopted, foreign capital would flow in abundantly, and would presumably lead the process of industrial transformation.

This view is oversimplified. Different countries have differing abilities to attract FDI, depending not just on their policies but also on their capabilities to handle the technologies which foreign investors are deploying. FDI can transfer some of the (mobile) elements of the package that determines efficient production, but it cannot transfer all elements involved. The elements that the host economy has to supply will determine how much FDI, in which industries and at what level of sophistication it can, ceteris paribus, attract. Moreover, since there are other means by which relocation can be affected, the role allotted to FDI is a strategic decision that the host government has to take. The other means may involve "new" forms of foreign investment (contractual relations without equity participation, or with minority participation), short term or one-off arm's length transactions (licensing agreements, consultancy services, hiring of individual experts), or simply the import of capital goods coupled with local efforts to copy, improve

or innovate on the relevant technology. A country's choice between FDI and these, or between the alternative non-FDI channels of relocation, depends on the strength of the indigenous industrial sector, socio-economic objectives and the technological resources that can be mustered in the time period under consideration.

While an increasing number of countries is competing for foreign investment, it needs to be pointed out that total FDI flows in general - albeit increasing - constitute only a marginal complement to domestic investment activities. The latter generate the bulk of industrial capacities in developing countries. FDI often can be crucial, however, in qualitative terms by providing domestically non-available technologies, know-how and skills.

This study attempts a review of recent trends of FDI and of the interactions that currently seem to determine industrial relocation by FDI. Some of the relevant factors are well known, such as the debt problem of some major past recipients of FDI and recent policy changes in most parts of the developing world favourable to foreign investors; these require less emphasis here. Others are less well understood, and will be given greater attention, in particular the impact of technological change and host country industrial capabilities on FDI patterns and flows.

II. RECENT TRENDS IN FDI FLOWS TO DEVELOPING COUNTRIES: CHANGES IN MAGNITUDE AND STRUCTURE

1. Global FDI flows

Total world outflows of FDI in 1988 amounted to over \$115 billion (OECD 1989). Increases in FDI flows over the last three decades have been almost continuous and, in some years, prodigious. For example, the total outflow of FDI for 1989 has been provisionally estimated at US \$180 billion which would imply an increase of 57 per cent over the previous year.

In the previous two decades, there have been just two points - in the mid 1970s and in the early 1980s - at which this pattern of continuous increase in FDI outflow was broken. In the early 1980s, this was almost totally due to the fall in FDI outflows from the USA.

Thereafter, on a world level, FDI flows took off, again reaching record levels. Total worldwide outflows of FDI tripled between 1984 and 1987, increasing 39 per cent in 1985, 58 per cent in 1986 and 46 per cent in 1987. Average annual outflows during this period were \$81 billion, a sharp increase from the immediately preceding years (UNCTC 1989).

Table 1. FDI outflows from five major home countries, 1981-1988
(Millions of US dollars)

Country	1981	1982	1983	1984	1985	1986	1987	1988 ^{a/}
France	4615	3063	1841	2126	2226	5234	8704	12751
Germany, Federal Republic of	3862	2481	3170	4389	4804	9610	9036	10393
Japan	4894	4540	3612	5695	6452	14480	19519	34210
United Kingdom	12065	7145	8211	7988	11293	16551	30699	26569
United States	9620	-2360	380	2820	18070	27810	44470	24420
Total	35056	14869	17214	23288	42845	73681	112428	104343

Source: OECD, International Direct Investment and the New Economic Environment, Paris, 1989.

a/ Provisional figures.

The growth in world FDI outflows is well illustrated in Table 1 above, which shows the outflows of the world's five leading market economies - France, the Federal Republic of Germany, Japan, the United Kingdom and the United States. In 1987, for the first time, these countries' total FDI outflows surpassed \$100 billion; in 1981, the corresponding figure was \$35 billion. The provisional calculation for 1988 of \$104 billion confirms this prodigious upward trend in FDI outflows.

The dramatic increase in outflows of FDI since 1985, when expressed in US\$, is in part due to the impact of the depreciation of the dollar on the measurement of such flows. For example, one recalculation of the investment flow data of five major investing countries (France, the Federal Republic of Germany, Japan, the United Kingdom and the United States) estimates that approximately one third of the increase in investment flows from these five countries from 1984 to 1987 was accounted for by the depreciation of the dollar (UNCTC 1989). On the other hand, since 1987, the upward trend in FDI outflows has continued, even though against some currencies - particularly the pound sterling - the US dollar has appreciated. Thus, despite currency fluctuations, the FDI growth genuinely represents a strong indication of the increase of TNCs' activities on international markets.

2. Share of developing countries

There has been a clear tendency in recent years for FDI flows to become more concentrated on leading developed countries both as sources and as recipients of investment. In 1987, only five countries - USA, UK, Japan, FRG and France - were the source of 80 per cent of all FDI outflows and the target of 60 per cent of all FDI inflows. An examination of the global geographical distribution of FDI inflows during the period 1981-1987 shows that the five major FDI home countries are also the largest recipients of FDI, accounting in 1981-1983 for 53 per cent and in 1984-1987 for 58 per cent of total inflows. Taking developed countries as a whole, their share of total worldwide FDI flows climbed from 72.5 per cent in 1981-1983 to 78.8 per cent in 1984-1987. Many factors are responsible for this trend, including corporate strategies to redeploy production behind protection barriers; increased intra-industry co-operation, particularly in high technology areas; and, as a regional phenomenon, the planned creation of the EEC unified market in 1992 which forces companies to look out for competitive locations in gaining access to the big EEC market (these issues are dealt with in more detail in section III.1 of this paper).

The developing countries received a total of \$11.2 bn in FDI flows from the OECD countries in 1988 (see table A-1 in the statistical annex for a breakdown of investor countries). This is somewhat better than the low point of 1985, when the developing countries received barely over one half of this - \$6.7 bn - but rather poor when compared with 1981, when these countries amassed \$17.2 bn in FDI inflow.

On a general level, the share of developing countries in world FDI inflows has declined rapidly in recent decades. In the 1960s, developing countries absorbed about 40 per cent of international FDI flows; during the 1970s, this figure fell to around one third of the global total. As can be seen from Table 2, the early 1980s saw an increase in developing countries' share of total FDI flows. But thereafter, developing countries as a whole failed to capture any significant share of the great upsurge in world FDI flows which took place, in particular, after 1984. In fact, their shares for 1985, 1986, 1987 and 1988 were 13.5, 15.0, 10.5 and 9.8 per cent respectively. As will be shown later this decreasing share in fact masks a rather varied picture of performances by individual developing countries, some of which have enjoyed significant upsurges in FDI inflows.

Furthermore, while as a group, developing countries' share of total FDI flows has undoubtedly declined, the role of FDI within total resource flows to developing countries has increased in the 1980s. While FDI by OECD countries made up only 8.7 per cent of total net resource flows to developing countries in 1984, this figure rose to 15.5 per cent by 1987. However, this is largely because of the declining role of international bank lending in the 1980s to developing countries: such lending accounted for 38.2 per cent of total net resource flows to developing countries in 1980, but for only 16.2 per cent in 1985 and 9.4 per cent in 1987 (OECD 1987).

Table 2. FDI outflows from OECD to developing countries, 1981-1988

	1981	1982	1983	1984	1985	1986	1987	1988
(US \$bn)								
FDI in developing countries	17.2	12.8	9.9	11.4	6.7	12.2	13.2	11.2 ^{a/}
Total OECD FDI outflows	45.5	18.9	23.7	30.7	49.7	81.3	125.9	114.5 ^{b/}
(%)								
Share of developing countries in total OECD FDI outflows	37.8	67.7	41.7	37.2	13.5	15.0	10.5	9.8

Source: Calculations based on OECD statistics.

a/ Not including UK

b/ Provisional figure

Traditionally, the two principal sources of FDI into developing countries have been the US, which accounted for over half of all such flows throughout the 1970s, and the UK, whose share, on average, was around 10 per cent. In the late 1980s, however, Japan has assumed the position of the world's leading source of FDI to developing countries. In 1988, Japan accounted for over half of the total FDI flows to developing countries from major industrialized countries by investing \$9 billion. This is over 25 per cent of Japan's total outward flow of FDI (see Table 3). In comparison, the US invested, in the same year, \$ 4 billion in these countries.

Table 3. JAPAN: Outward flows of FDI, 1987-1988
(US \$ million)

Recipient	1987	1988
Developing countries (DCs)	10,018	12,909
All countries	33,364	47,022
Share of DCs	30.0	27.5

Source: OECD, International Direct Investment and the New Economic Environment, Paris, 1989.

In the cases of the UK and the Federal Republic of Germany, Tables 4 and 5 show that their shares of outflows to developing countries have fallen from 17 per cent in 1981 to 11.3 per cent in 1987 for the UK and from 13.5 per cent in 1981 to 1.1 per cent in 1988 for the Federal Republic of Germany.

Table 4. FEDERAL REPUBLIC OF GERMANY: Outward flows of FDI, 1981-1988 (selected years)
(US \$ million)

Recipient	1981	1984	1987	1988
Developing Countries (DCs)	513.2	471.4	787.0	117.2
All countries	3,811.7	4,028.0	9,946.9	10,432.6
Share of DCs	13.5	11.7	7.9	1.1

Source: Calculated from Statistische Beihefte zu den Monatsberichten der Deutschen Bundesbank, Reihe 3. Zahlungsbilanzstatistik, Nr. 6, Juni 1989.

Table 5. UNITED KINGDOM: Outward flows of FDI, 1981-1987 (selected years)

Recipient	1981	1984	1987
Developing countries (DCs)	2,045.1	2,185.6	3,483.7
All countries	12,065	7988	30,699
Share of DCs	17.0	27.4	11.3

Source: Calculated from data from the Central Statistics Office, London, 1989.

3. FDI as share of national aggregates in developing countries

It needs to be pointed out that FDI is but one single component of overall investible resources in developing countries. While FDI inflows may be crucial in particular branches of industry and for the transfer of specific, more sophisticated production technologies, in overall terms they appear to have received disproportionately high attention both as a research topic and in economic policy debates.

From Table 6 it emerges that even in those developing countries having attracted major FDI inflows, these account for only a small portion of overall gross fixed capital formation. Only in one country, Singapore, has FDI consistently contributed over 10 per cent to total capital formation. The same was true for the Philippines and Mexico in 1988, whereas in countries such as Brazil, Chile, Indonesia and the Republic of Korea FDI has contributed only marginally to overall capital formation. These figures point to the overwhelming importance of domestic investment efforts to achieve sustained economic development in the great majority of developing countries. Private domestic investment should therefore be actively encouraged both as the major vehicle of economic and industrial development and - as is elaborated in section IV.3 of this report - as one of the crucial preconditions for attracting complementary FDI inflows. In this context, it is reassuring to note that, although FDI flows to developing countries have been declining, overall private investment in developing countries has been increasing steadily since 1987 (Madarassy 1989).

Whereas FDI tends to contribute only on a minor scale to total capital formation (which comprises e.g. also investments related to agriculture, public utilities and infrastructure), it plays a more prominent role in many developing countries' manufacturing sector in terms of its employment contribution, share in manufacturing production and, particularly, manufactured exports (for selected country-specific data see Annex-Table A-2).

4. Concentration among developing countries

Foreign investment has always tended to take place in relatively few developing countries, many of which have a comparatively high per capita gross national product. Over the years, this trend has become even more accentuated. In 1971, 20 developing countries accounted for almost two thirds of the total stock of FDI in developing countries. This share for these same countries increased to nearly three quarters in 1978 (UNCTC 1983). Today, just 18 countries and territories account for 86 per cent of the flow of FDI to the developing countries as a whole (UNCTC 1988).

However, not all those developing countries which have traditionally received a large share of total FDI to developing countries have benefited to the same extent. For instance, while Mexico now accounts for fully 28.1 per cent of total FDI flows to developing countries, Brazil's share has fallen from around 20 per cent in 1980 to barely over 3 per cent in 1987.

As regards the least developed countries, their position among developing countries, as a whole, has worsened. In 1980, these countries, listed in Table 7, received almost 3 per cent of total FDI to developing countries. In 1986, they received just 1.4 per cent.

Table 6. Share of FDI in gross fixed capital formation in selected developing countries, 1980-1988 (selected years)
(\$ US million, current prices)

	1980	1984	1988
<u>Latin America</u>			
Argentina	2.2	n.a.	n.a.
Brazil	2.9	0.2	0
Chile	3.7	2.8	3.1 ^{a/}
Colombia	0.8	7.7	2.3
Mexico	4.5	1.2	12.2 ^{a/}
<u>Asia</u>			
Indonesia	1.2	1.0	2.4 ^{a/}
Korea, Republic of	0.0	0.2	1.4
Malaysia	12.5	0.7	7.3
Philippines	0.0 ^{b/}	0.1	15.6
Singapore	21.5	13.4	12.4
Thailand	2.0	4.1	7.2
<u>Africa</u>			
Ghana	1.6	0.3	0.9 ^{a/}
Nigeria	0.0 ^{b/}	3.7	29.5
Zimbabwe	0.1	0.0	n.a.

Source: Calculated from IMF, Financial Statistics, selected years.

a/ 1987 figure

b/ Net disinvestment

In regional terms, it is clearly the Asian developing countries which have recently managed to attract the lion's share of FDI flows. The net inflow of FDI (i.e. after subtracting profit remittances) in 1981-87 totalled \$21 billion for all non-oil exporting developing countries, with the following regional breakdown: -\$10.5 billion for Africa; \$1.6 billion for Latin America; \$5.3 billion for European developing countries; \$6.0 billion for non-oil Middle East countries; \$18 billion for Asia (World Bank 1989).^{1/}

1/ In the same period, oil-exporting developing countries suffered a net outflow of \$-30.9 billion.

Table 7. FDI inflows to least developed countries, 1980-1986
(US\$ millions)

Country	1980	1981	1982	1983	1984	1985	1986
Afghanistan	9.0	0.2	0.1	..	..	..	..
Bangladesh	8.5	5.4	7.0	1.1	3.8	-6.7	-1.1
Benin	4.3	2.1	..	..	..	..	..
Botswana	111.5	88.4	21.1	23.8	62.1	53.6	90.5
Burkina Faso	..	2.5	2.0	2.0	1.6	..	..
Burma	0.4	..	..	-0.4	0.8	..	0.1
Burundi	4.6	11.1	0.9	3.0	1.2	0.2	0.3
Central African Rep.	5.3	5.8	9.2	4.5	5.1	2.9	8.2
Chad	..	..	..	..	9.2	53.6	28.2
Djibouti	0.2	..	-0.1	..	0.2	0.2	1.2
Equatorial Guinea	..	-0.2	0.5	0.5	2.2	..	..
Gambia	0.3	0.7	0.3	-0.4	-1.7	-0.5	..
Guinea	0.6	-1.3	..	0.4	0.7	1.1	4.0
Guinea-Bissau	..	..	..	..	2.3	1.4	0.8
Haiti	13.0	8.1	7.0	8.3	4.4	5.0	4.9
Lesotho	4.6	4.8	3.1	4.8	2.4	4.8	2.1
Malawi	9.5	1.1	..	2.6	..	0.5	..
Maldives	-0.1	..	-2.9	0.2	-0.1	..	..
Mali	2.3	3.7	1.5	3.1	4.1	4.5	4.3
Mauritania	27.1	12.5	15.0	1.4	8.5	7.0	4.5
Nepal	0.3	-0.2	..	-0.6	1.0	0.7	1.2
Niger	49.1	-6.1	28.3	1.2	1.4	1.2	1.2
Rwanda	16.4	18.0	20.8	11.1	15.1	14.6	17.6
Sierra Leone	-18.6	7.5	4.6	1.7	5.8	-3.8	-6.5
Somalia	..	..	-0.8	-8.2	-15.0	-0.7	-0.1
Sudan	..	..	..	..	8.8	-2.8	..
Togo	42.3	10.1	16.1	1.5	-9.9	..	..
Uganda	4.0	..	2.0	..	..	-4.0	..
United Rep. of Tanzania	4.6	18.9	17.3	1.5	-8.4	14.5	3.3
Vanuatu	..	..	7.0	5.9	7.6	4.6	2.0
Yemen Arab Republic	-1.2	13.8	51.8	15.8	0.1	2.1	4.2
All LDCs^{a/}	298.0	207.4	212.0	84.7	113.3	152.8	170.7
LDC share in all developing countries (percentage)	2.88	1.34	1.61	0.81	1.07	1.31	1.42

Sources: United Nations Centre on Transnational Corporations, based on IMF balance-of-payments tape of November 1988; information from OECD Secretariat; and national sources.

a/ Including LDCs not separately listed in this table.

a. Latin American countries

The impact of the debt crisis and the depressed economic conditions affecting the region have had an uneven effect on FDI flows to Latin American countries. FDI flows to Venezuela, Brazil, Argentina and Chile have all plunged since the debt crisis. In contrast, Mexico's FDI inflows, which suffered a massive drop between 1983-85, have recovered to and even surpassed previous levels. In 1987, Mexico attracted 2.497 million SDR, in comparison to 2.155 million SDR in 1981. In contrast, Argentina recorded negative inflows in 1987, after attracting 698 million SDR in 1981; Venezuela received 46 million SDR in 1987, in comparison to 150 million SDR in 1981; Chile received 31 million SDR in 1987, in comparison to 325 million SDR in 1981, while for the latest available year, 1986, Brazil recorded an inflow of just 380 million SDR, in comparison to 2142 million SDR in 1981 (see Table 8).

Table 8. FDI inflows to selected Latin American countries, 1981-1987
(in million SDR)

Year	Venezuela	Mexico	Brazil	Chile	Argentina
1981	156	2155	2142	325	698
1982	233	1489	2647	363	204
1983	80	427	1456	126	172
1984	47	381	1559	76	262
1985	104	494	1341	63	897
1986	14	1290	380	51	491
1987	46	2497	352.4 ^{a/}	81	-13

Source: IMF Balance of Payments Statistics Yearbook, Part 2, 1988.

a/ Preliminary information, from Journal of Latin American Studies, May 1989.

In this region, FDI has often been of two types: firstly, that in countries with a relatively high level of economic development and rather large domestic markets; and secondly, that in countries with raw material resources or with relatively low labour costs. Where the resurgence has occurred, it has tended to be in countries of the second type, notably Mexico, which has succeeded in attracting FDI to its "maquiladoras" region on the border with the US market, where firms are offered low labour cost advantages. At the same time, the impact of the debt crisis on TNCs involved primarily in servicing the local markets has been particularly damaging as it has sharply reduced demand in these countries. These TNCs have been even further affected by the impact of developing country indebtedness on the availability of foreign exchange and by resulting difficulties over profit remittances and the repatriation of capital.

b. Asian countries

As in Latin America, the flow of FDI into Asia is heavily concentrated in a few countries and territories. Out of 20 countries and territories, eight (China, Hong Kong, Indonesia, Malaysia, the Republic of Korea, Singapore, Taiwan Province and Thailand) received 92 per cent of FDI flows during the 1981-85 period (UNCTC 1988).

These eight countries possess certain characteristics attractive to foreign investors. Among them are relatively large domestic markets (China, Indonesia, and Thailand); conditions favourable to the establishment of low-cost, export-oriented manufacturing industries, including low labour costs, availability of skilled manpower and well-developed infrastructure (Hong Kong, Malaysia, Singapore and Taiwan Province); and petroleum and other natural resources (Indonesia and Malaysia).

As can be noted from table 9 on FDI flows to Thailand, Indonesia, China, Malaysia, Singapore and the Republic of Korea, the picture is much more favourable than that of Latin America. However, there are still a number of particular characteristics within this overall picture. First, three countries with high economic growth rates - namely Thailand,^{1/} Indonesia^{2/} and the Republic of Korea - still receive relatively small amounts of FDI. Rather, as is well illustrated, the upsurge in FDI flows to the region, as a whole, is particularly accounted for by China. Since opening up its economy to foreign investors, it has become one of the world's major host countries to FDI. Between 1982 and 1987, its inflow increased fivefold to stand at \$1790 million, more than the combined totals of Singapore, the Republic of Korea, Thailand and Indonesia. Second, FDI flows are sensitive to government policy. Slowness in progressing towards full liberalization of country investment regimes has dampened inflows to a certain extent. Malaysia, for example, has lost 60 per cent of its FDI inflow between 1982 and 1987, due in part to uncertainties over its policy towards foreign corporations.

c. African countries

Of all developing country regions, Africa has clearly fared the worst. Whereas in 1980 it received about 8 per cent of total FDI outflows to developing regions, primarily because of foreign investments in the extractive industries, by 1987, its share was down to 5.6 per cent.^{3/} In comparative terms, in 1987 the whole of Africa received substantially less FDI inflows than Singapore.

^{1/} According to Bank of Thailand statistics there was, however, a dramatic increase in FDI inflows in 1988 and 1989.

^{2/} This excludes, however, FDI in the petroleum sector.

^{3/} Own calculations based on IMF Balance of Payments sources.

Table 9. FDI inflows to selected Asian countries, 1981-1987.
(million SDR)

Year	Thailand	Indonesia	China	Malaysia
1981	249	113	...	1073
1982	175	205	389	1.66
1983	327	274	595	1179
1984	394	221	1227	778
1985	159	304	1634	684
1986	225	221	1598	473
1987	146	236	1790	445

Year	Singapore	Republic of Korea
1981	1408	86
1982	1451	62
1983	1061	65
1984	1270	109
1985	1031	227
1986	555	365
1987	894	462

Source: IMF Balance of Payments Statistics Yearbook, Part 2, 1988.

As in the other developing regions, the flow of FDI to Africa is concentrated on a relatively small number of countries, practically all of which are oil exporters. During the 1981-85 period, Algeria, Cameroon, Egypt, Nigeria and Tunisia accounted for almost 90 per cent of FDI inflows into the African region. With the exception of Egypt, all FDI flows into these countries have fallen by varying degrees throughout the 1980s. The sharpest fall was registered by Nigeria. While Nigeria received 463 million SDR in 1981, large-scale disinvestments by companies operating in the oil industry account for the decline to 53 million SDR in 1987. In contrast, Egypt has attracted new inflows into this industry in recent years. In 1985 and 1986, it received over 1 billion SDR. Egypt is now, far and away, the biggest recipient of FDI in the region (see Table 10).

The overall decline in FDI inflows into these countries has not been compensated for by the emergence of other countries as significant recipients of FDI. Indeed, of major concern is the failure of middle-income countries like Kenya, Morocco, Zambia and Zimbabwe to attract such investments. The volume of investment flows into these countries has never exceeded 100 million SDR per annum. Zimbabwe, for most of the 1980s, has recorded negative inflows, while Kenya's annual average inflow was just 20 million SDR.

For low-income African countries, net FDI flows ranged from a negative balance to a few million SDR per year in most cases. For example, Ghana's annual flows fell to single digit figures after 1982. For countries like Ghana, the dismal picture was partly due to the collapse in primary commodity prices between 1980 and 1987. Many of these Sub-Saharan countries' exports are derived from one or two primary commodities. Declining export revenues not only caused a cut-back in imports essential for domestic investment projects, but also increased debt-service-to-export ratios, to between 50 per cent and 100 per cent. Poor prospects for primary commodities were also responsible for the decline in FDI inflows, since the production of primary commodities for export is the major reason for TNC investment in those countries.

One of the most significant changes in many African countries has been in government attitudes towards FDI resulting in new policy efforts to attract foreign investments. But there is no conclusive evidence, one way or the other, as to whether these policies will succeed in attracting new flows. Recent new government policies in some African countries, such as the selling of state or parastatal enterprises (Ghana, for instance, in early 1988 named another 32 domestic companies for which it was seeking foreign purchasers) may provide private foreign investors with new business opportunities.

Table 10. FDI inflows into selected African countries, 1981-1987

(million SDR)

Year	Algeria	Botswana	Cameroon	Côte d'Ivoire	Ghana	Morocco	Tunisia	Egypt	Kenya	Nigeria	Zambia	Zimbabwe
1981	11	75	115	28	14	50	251	638	12	463	-33	3
1982	-49	19	101	43	15	72	308	266	12	389	35	-1
1983	-	22	200	35	2	43	172	458	22	331	24	-2
1984	1	61	17	3	2	46	111	711	10	184	17	-2
1985	-	53	311	29	6	20	106	1160	18	462	51	3
1986	...	77	16	92	4	-	54	1038	28	167	...	...
1987	...	97	...	...	4	...	70	...	...	53	...	...

Source: IMF Balance of Payments Statistics Yearbook, Part 2, 1988, Vol. 39.

Notes: - means zero or insignificant
... means data n.a.

5. The new role of European CMEA countries

Recently many CMEA countries have begun to actively seek increased inflows of FDI with a view to strengthen their industrial base, showing perhaps for the first time an appreciation and encouragement of the developmental role FDI can play. Although the amount of FDI into European CMEA countries up to the end of 1989 has grown rapidly, a UNIDO study outlining recent trends in FDI flows to CMEA countries estimates that actual amounts have remained comparatively small at US \$2.2 billion (UNIDO 1990). This dollar figure represents 2090 foreign investments in Czechoslovakia, Hungary, Poland and the Soviet Union. Compared to the US \$21.9 billion stock of inward FDI to Mexico in 1988, the stock of FDI in these four countries represents less than 10 per cent of the Mexican value alone. The sectoral distribution of investment is relatively straightforward with joint ventures in the manufacturing sector forming the bulk of investment in terms of number and capital invested, and the remainder of joint venture activity almost totally accounted for by the service sector.

The evolving policies of the European CMEA countries in terms of attracting FDI raise the issue of whether FDI flows to these countries will substitute flows that would have otherwise gone to the developing countries. At the moment there is little evidence that this will be the case. It is unlikely that countries and companies that have established strong investment links with developing countries will now switch over to the European CMEA countries on a great scale. There is certainly no indication that they have done this so far.

An assessment of future trends would require a closer look into the motives for FDI into European CMEA countries and a comparison of these with the overall trends in FDI into the developing countries. Most investment into European CMEA countries so far has been made with the intention of increasing market shares and producing goods and services for the domestic market. Thus the investment motive is related to the exploitation of the domestic market and not to a variable such as inexpensive labour. Because these countries are not being used as major export platforms it seems unlikely that there will be a great substitution effect. However, magnitudes of investment flows are bound to change and whether this will create a significant substitution effect will remain an open issue. In any case, the opening of these economies does create new opportunities for growth and development worldwide and also developing countries will be able to take advantage of these new opportunities (as companies from the Republic of Korea have already done).

6. Sector and branch composition

In recent years, there has been a general upsurge of FDI in services to developing countries although this trend has been less pronounced than in the case of FDI in developed countries. This tendency is most noticeable in the case of Japan. Table 11 shows that approximately three quarters of Japanese FDI to developing countries has been concentrated in the services sector from 1985 to 1988. While in Africa and Latin America the services sector is by far the largest recipient of FDI, in Asia more than 50 per cent of FDI is accounted for by services, which puts this sector slightly ahead of

manufacturing. In the case of the USA, in 1988, FDI into manufacturing in developing countries was 3.2 billion, outstripping FDI into services, which amounted to US \$1.4 billion. Table A-3 in the statistical annex shows the sectoral breakdown of FDI in 38 developing countries. While the value of service FDI has been growing in most of these countries, so far no stable pattern regarding an increasing share of FDI in services has emerged.

Table 11. Japanese FDI flows to developing regions, by economic sector 1985-1988 (selected years)
(million US \$)

Sector	Latin America	Asia	Africa	Total
		<u>1985</u>		
Primary	14	329	7	350
Secondary	324	460	4	788
Tertiary	2276	630	161	3067
Total	2614	1419	172	4205
		<u>1987</u>		
Primary	32	275	2	309
Secondary	161	1679	2	1842
Tertiary	4619	2867	270	7756
Total	4812	4821	274	9907
		<u>1988</u>		
Primary	54	275	2	331
Secondary	443	2371	1	2815
Tertiary	5930	2708	650	9288
Total	6427	5354	653	12,434

Source: Calculated from data from the Japanese Ministry of International Trade and Industry, 1989 [JETRO].

In the ASEAN region, services account for more than 25% of foreign investment in all countries but Indonesia, and the share of services exceeds 45% in Singapore and Thailand. In many of these countries, the fast growth in manufacturing has, to some extent, outstripped the capacity of the tertiary sector to service this expansion. Strains are found in almost all components of infrastructure, including roads, railroads, power and water supplies, posts and telecommunications. In some cases, these service bottlenecks have dissuaded foreign companies from further investment. In order to alleviate this problem, many of these economies have permitted FDI inflows in service industries.

However, the prominence being given to services in FDI flows to developing countries is probably overplayed because of the role of offshore banking and tax havens in attracting large inflows from financial service TNCs from developed countries. Also, services have come to take on an importance in many cases not because of actual increases in FDI flows, but as a result of the sharp decline in FDI into other sectors - most notably, in primary products. Finally, FDI into services may also have been inflated by the inclusion of sales offices of TNCs operating in developing countries.

As regards the branch composition of FDI in manufacturing, no aggregate data for the developing countries are available nor are easy generalizations possible. Foreign investment is spread over a wide range of branches with differing patterns emerging in different countries according to their resource endowment, level of development and policy priorities. The evidence available from country case studies suggests that chemicals, electronics, clothing and food processing are among the branches which have received particularly large amounts of FDI.

Only relatively few developing countries provide an up-to-date statistical breakdown of the changing branch distribution of their stock of FDI. When the available data are brought together they show a good deal of variation between countries as to those industries in which FDI is prominent. For example, comparing Mexico and Brazil, while investments by foreign firms in the automobile industries in both countries have been strong, other branches of heavy industry - especially chemicals and, to an increasing extent, iron and steel - rank highly in Brazil, while food processing is of substantial importance in Mexico. In short, there is no stable branch pattern of FDI across different developing countries. It appears, however, that FDI in developing countries is concentrated in fewer industries than in developed countries, reflecting the developing nature of their economies, as well as, to some extent, the barriers to entry which some of these countries still raise to foreign firms.

In general, a qualitative trend is noticeable for FDI to become technologically more ambitious. Whereas the "first round" of North-South industrial redeployment involved primarily labour-intensive goods requiring only simple production technologies (e.g. in clothing production or simple consumer electronics), worldwide industrial restructuring is now proceeding into branches such as automobiles, electrical machinery, machine tools and others. According to MITI, Japanese industry in these three branches is expected to have 30-50 per cent of output produced abroad by 1995, with a sizeable portion being redeployed to developing countries.^{1/}

The United States, as well, is relocating increasingly high-tech production to the developing countries, especially the Newly Industrializing Countries (NICs)^{2/} and increasingly to ASEAN. The manufacture of electric

1/ Already now, Mitsubishi Motor exports Proton cars from Malaysia to the UK and Lancars from Thailand to Canada.

2/ The term "NICs" is used extensively to describe developing economies, be they countries, provinces or areas, where there has been particularly rapid industrial growth. It does not imply any political division within the ranks of developing countries and is not officially endorsed by UNIDO.

and electronic machinery now dominates US investment in Malaysia, Singapore and Thailand, making these three ASEAN countries important centers of electronic activity. The American electronics affiliates are, of course, more labour-intensive (relative to the world average) and one of the motives for investment in the region has clearly been inexpensive labour. However, there are increasing cases which point to a change in the motivations and requirements for relocation. For example, although Singapore has the highest wage rate in the region, it is the recipient of 31 per cent of US direct investment in manufacturing in ASEAN and its electronics sector is one of only three such sectors in ASEAN to average over US \$100 million in investment income for the USA (Plummer/Ramstetter 1989).

It is becoming clear, therefore, that the goal of offshoring is no longer only reducing the cost of unskilled labour, rather it is increasingly reducing the cost of skilled and professional labour. This can mainly be attributed to significant technical changes in the production line, whereby product cycles become increasingly complex. "Whereas only the most labour-intensive operations of a given production line (e.g. assembly) used to be transferred to affiliates in developing economies in the past, increased emphasis is being put on performance of more sophisticated tasks, sometimes requiring automation by affiliates." (Plummer/Ramstetter 1989, p.184.) The consequence of this is the trend we are observing today: a qualitative change in investment motivations and demands, where high-tech infrastructure and skilled labour will be increasingly sought out by investing firms.

The changing branch pattern of FDI has some important implications for the type of skills being created and required in developing countries. In developing countries, generally speaking, throughout the 1980s, FDI has declined in natural resources and increased in services, even though not as much as in developed countries and has increased in manufacturing in some developing countries and declined in others. While fluctuating in this way, FDI in manufacturing, overall, has not advanced to the same degree as it did in the 1970s.

As it concerns FDI in manufacturing, this decline from its earlier prominence in the 1970s is due, to some extent, to new technological developments in developed countries where the application of microelectronics to production has substituted skill-intensive jobs for lower skilled ones. For developing countries which succeeded in attracting FDI into labour-intensive assembly in manufacturing, these developments tended to halt and, in some cases, even reverse this flow in new investment back to the developed countries. These innovations, however, in such areas as computer aided manufacturing are increasingly eliminating the large-scale requirements for comparatively unskilled manpower for repetitive tasks. Indeed, some of these innovations result in greater demand for more highly skilled manpower with sound industrial and/or computer experience.

No doubt, this technological upgradation of FDI to developing countries is a gradual long-term process which will affect only a relatively small group of more advanced developing countries in the short run. Labour-intensive, low technology industrial relocation will remain significant in many branches and

for a wide range of developing countries. The production of garments for export markets is a case in point: despite technological advances in the developed countries low wages continue to be a source of comparative advantage and the relocation "back North" of production facilities has not taken place on a massive scale as was expected by many observers in the early 1980s.

However, even in the case of garment production, skill requirements are rapidly increasing. This applies even stronger to the technologically more demanding new branches of FDI mentioned above. They require fairly advanced host country industrial capabilities for efficient operation. (This issue is dealt with in detail in chapter III.)

7. New forms of investment

A significant development in the discussion of FDI emerged in the mid-1970s with the concept "new forms of investment" (NFI) (Oman 1984). NFI refers to a range of international corporate relationships from equity forms (such as joint ventures and international subcontracting) to non-equity forms (such as licensing agreements, turnkey contracts, management contracts and various strategic alliances). The "new forms" are classified as such according to the following criteria: investments where foreign-held equity does not exceed fifty per cent or contractual arrangements which do not involve equity participation by the investing firm. The degree of equity ownership differentiates NFI from traditional FDI which implies whole or majority foreign ownership. Quantitative increases in the use of these forms of international corporate association have enhanced their global significance and therefore induced qualitative changes in the pattern of foreign direct investment itself (Oman 1984).

The lack of equity involvement (relative to traditional FDI) in NFI has led to situations where although NFI qualify as investment for the host country they do not necessarily qualify as investment for the home country (e.g. in the case of turnkey plants). For the home country the NFI may correspond more to the logic of a sales (export) operation than to an investment. This is of particular importance to developing country firms (mainly in the NICs) who have a comparatively high propensity of NFI in other developing countries. Often NFIs are used as vehicles for increasing South-South trade by raising the level of exports to less industrialized developing countries.

The construction sector holds the highest share of NFI by the NICs, with turnkey contracts being the most common form of investment. At the end of the mid-1980s the leading contractors were Korean and Indian companies. The principle host countries were the oil-exporting countries of the Middle East and Africa. Another major activity for Korean and Indian contractors has been industrial plant exports in the chemical and cement industries and in energy distribution systems.

A major advantage of NFI for the NIC investors is that the NFI work well with their competitive advantages, especially in comparison to their OECD counterparts. Overall the services they supply tend to be better adapted to the needs of developing countries, they are able to mobilize large amounts of labour at low wage levels and (although this is clearly non-quantifiable) they seem to enjoy in many cases a privileged relationship with host governments.

The benefits derived from NFI often have a positive impact on the home-country economy. Because of the importance of NFI as vehicles for exports to other developing countries, they contribute to improving the balance of payments. Also, there have been cases (i.e. the construction industry in Brazil) where NFI have been used either to ensure access to natural resources or to sustain the growth of specific industries when demand at home is stagnating. Equally important for the home country are "spillover" effects from the experience gained in projects abroad which are transferred to firms' home activities (Oman 1986).

The advantages of increased NFI by the NICs for the host country are numerous as well. One of their most important advantages is that the goods and services they provide are often well adapted to the conditions prevailing in host countries. Of even more significance is that as the NIC-based companies become more internationalized, the number of potential investors and suppliers of productive assets also increases. NFI thus, can be seen as creating numerous additional opportunities for investment by and in developing country industries.

8. Role of investors from developing countries

Total stocks of FDI held by firms from developing countries are not very large at present, yet they are growing rapidly. In 1985, according to UNCTC (UNCTC 1988) estimates, they totalled \$19.2 billion, around 3 per cent of the world's total stock of FDI. Data on developing country investments are notoriously difficult to collect because of tight regulations in many home countries that force investors to under-report or conceal their overseas activity. Nevertheless, the Third World multinationals phenomenon is significant from the viewpoint of industrial relocation in the future, as it involves the transfer of industrial activity from the more advanced to other developing countries, and as it often involves lower technology, smaller scale activities that are less frequented by TNCs from advanced industrial countries. Even where the Third World ventures are in skill-intensive "modern" activities, they may offer advantages in their greater willingness to take minority positions, source local supplies, train local workers and set up small-scale operations (Wells 1983).

A number of NICs, from Latin America and Asia, have invested overseas in manufacturing industry. However, the pattern of activity in the 1980s has been strongly influenced by the economic performance of major home countries. Latin American countries have sharply reduced their overseas exposure (at least in recorded terms). India has also slowed down after an initial spurt; in contrast, the East Asian NICs have forged ahead with a substantial expansion of overseas manufacturing. A recent survey of FDI by Hong Kong, Singapore, the Republic of Korea and Taiwan Province (Whitmore/Lall 1990) shows that the total value of FDI by those 4 NICs in the 1980s, in South and East Asia alone, came to around \$16.9 billion (which makes the total stock of Third World FDI far larger than the figure given by UNCTC, quoted above). This may be compared to \$19.6 billion for Japan in the same period and host countries.

Hong Kong is the largest foreign investor of the NICs, accounting for around \$12.2 billion of FDI in Asia. Much of this (\$8.4 billion) is concentrated in China: Hong Kong accounts for about three quarters of FDI inflows into China, and its activity has made China the largest recipient of FDI in the developing world in recent years. Hong Kong has been so active in

relocating labour-intensive assembly activities to China that its enterprises there now employ about 2 million workers, more than twice manufacturing employment in Hong Kong itself. The export of products made in China and shipped through the colony has recently grown much more rapidly than Hong Kong's own manufactured exports.

This example shows the potential for industrial relocation between NICs and other developing countries. While the China-Hong Kong experience is clearly exceptional, very similar forces are at work in other cases. The pressures of higher labour costs, appreciating currencies, the need for gaining market access (by locating in countries with unused export quotas in garments, for instance) and the search for raw materials, have led all the NICs to invest overseas. Taiwan Province follows Hong Kong with \$2.5 billion dollars of FDI (these are figures on approvals from the host countries, since Taiwan's own approval figures are gross underestimates of true outflows). Then comes Singapore with \$1.8 billion, and finally the Republic of Korea with \$412 million (Whitmore/Lall 1990, Table 3).

The differences in relocation propensities within the four NICs are themselves of interest, reflecting differences in their policies, industrial strategies and structural changes. Hong Kong has the highest propensity to relocate partly because of its laissez faire economic policies and its location (next door to culturally identical China), and partly because of its high degree of specialization in labour-intensive assembly of light consumer goods. This specialization does not allow it to deepen its industrial structure rapidly in response to rising wages, and its laissez faire policies do not provide its enterprises with the new skills and technological support needed to enter more high tech activities. Taiwan Province has recently liberalized its investment regulation and is encouraging its labour intensive industries to relocate. Its industrial structure, populated largely by small to medium enterprises, faces some of the same pressures as Hong Kong, but with the additional spur of an appreciating currency. However, the country's firms have diversified considerably into skill and technology intensive activities, reducing the pressure to seek low-wage locations. Singapore is itself heavily dominated by TNCs from OECD countries, and has guided them into very capital and technology-intensive activities: thus, its industrial sector is very different from Hong Kong's, with less pressure to relocate and less indigenous entrepreneurship to bear this pressure. In fact, a large part of FDI from Singapore appears to be from TNCs based there rather than from local enterprises.

These three NICs are much larger overseas investors than the Republic of Korea, though the Republic of Korea has a larger industrial sector and also suffers from rising wages and an appreciating currency. The reason lies essentially in the Republic of Korea's much "heavier" industrial structure, with giant conglomerate firms (the Chaebol) spread over a wide range of capital, skill and technology-intensive activities. These Chaebol do invest abroad, but are under far less economic pressure from rising costs than firms in other NICs because of their ability to upgrade and diversify their domestic activities. Moreover they do not have the advantage of investors from the other Asian NICs of the "Chinese connection", the ethnic link which greatly facilitates information exchange and mutual trust in South East Asia. The absence of such a connection for Korea leads its firms to be more adventurous in searching for new locations, spreading rapidly from Asia to other parts of the developing world.

Hong Kong enterprises have also spread beyond the Asian region to less familiar settings, in Mauritius, Southern Europe and the Caribbean. This is due to their longer experience of overseas operation, and, increasingly the urge of many Hong Kong residents to seek foreign domicile. Furthermore, Hong Kong, Taiwan Province and the Republic of Korea have also invested in developed countries, the latter two in some large-scale operations to assemble consumer durables near the market (and to avoid protectionist pressures) or to gain access to raw materials and new technologies. Thus, Korean automakers, TV and microwave oven manufacturers, and Taiwanese TV and computer manufacturers are operating in North America and Europe; both own Silicon Valley firms as "antennae" to pick up technological information.

In general, it is noteworthy that despite the high propensity of NICs to invest in regional markets, it is the USA which in 1985 accounted for 44 per cent (US \$22 billion) of total FDI from developing countries in 34 host countries. Developing host countries like Brazil, China, Indonesia and Singapore each attracted more than \$1 billion in FDI from developing countries and in China and Malaysia, about half of inward FDI was from developing countries in 1985 (UN ECOSOC 1990).

Although there are some countries/territories which invest more in developing countries than in developed countries (Liberia, Uruguay, United Arab Emirates, China, Hong Kong, India, Malaysia, the Philippines, Singapore and Thailand), the importance of developing countries as a group of host countries declined from 39 per cent in 1975 to 27 per cent in 1985. In particular, outward data for the Republic of Korea and Taiwan Province point to the increasing importance of developed countries as host countries. The share of developed countries (North America and Europe only) among recipient countries increased from 14 per cent in 1974 to 33 per cent in 1983 and to 41 per cent in 1988 for the Republic of Korea, while for Taiwan Province, the importance of the US as a host country among all countries increased from 43 per cent in 1980 to 55 per cent in 1985 and to 60 per cent in 1988 (UN ECOSOC 1990).

The motivation for FDI in developed countries by investors from developing countries is predominantly to circumvent tariffs and quotas imposed by developed countries. The primary motivations for FDI to other developing countries, as it concerns many of the developing country investors, are the increasing labour costs at home, and the shortage of semi-skilled labour.

With regard to FDI by Korean investors, an increasing role of small- and medium-sized firms is clearly noticeable. Many of these firms have become very active in setting up production in low labour cost countries such as Indonesia, Thailand, Malaysia and the Philippines. FDI by these companies was 1.9 per cent of total Korean FDI in 1986, 15.1 per cent in 1988 and as much as 23.1 per cent by the first half of 1989 (Korea Exchange Bank 1989). Most of it was concentrated in North America (to avoid trade friction) and South East Asia (to benefit from lower labour costs), and in the manufacturing sector.

9. Role of small- and medium-size enterprises (SMEs)

Interest in the role of SMEs in FDI flows derives from the potential special contribution these companies can make to developing countries. Their relatively recent arrival as investors provides a new source of foreign capital for these countries. Their assumed specific characteristics - i.e. their greater flexibility, relatively labour-intensive technologies, greater adaptability to local economic conditions, capacity to serve small communities - could make them more suited to the conditions of most developing countries than their large TNC counterparts.

Therefore, for policy makers in developing countries, the FDI flows that SMEs can provide may constitute a valuable supplement to flows of more conventional types of TNCs, which, as indicated above, have been reducing their involvement in certain regions of developing countries in recent years.

SMEs have now firmly begun to enter the international market. In most cases, SMEs invest abroad for the same reasons as large firms. As with large firms, they need to be close to the markets they are serving. Local production is necessary when tariff barriers exist that obstruct their imports. Also, those SMEs which supply components and other parts to large enterprises follow their clients abroad as they themselves internationalize their activities. Many TNCs now have, through the system of "partnership sourcing", rather close relations with their suppliers. Instead of using many small suppliers, they tend to choose a few and contract with them to supply goods produced to the highest standards of design and production and delivered to strict schedules. By using these closer relations, supplier firms can follow their clients abroad, knowing that their products will have a ready-made market.

According to one source (UN ECOSOC 1990), based on evidence from 734 small and medium-sized TNCs, such FDI has tended to concentrate in developed market economies, which host more than 80 per cent of foreign affiliates. Among the developed countries, Japanese TNCs are exceptional in that they demonstrate a remarkably higher preference for locating their foreign affiliates in developing countries (52 per cent). Within developing host regions, Latin America is the major host region for US small and medium-sized TNCs, South and East Asia for Japanese SMEs, and Latin America and Southeast Asia are almost equally important host regions for Western Europe (see Table 12).

Japanese small and medium-sized TNCs, similar to large TNCs, started with Southeast Asia as their preferred location for foreign production. This region still accounts for about one-third of new equity investment cases for both large and small and medium-sized TNCs. About 40 per cent of the total number of new equity investments by Japan from 1980-1986 were by small and medium-sized TNCs. In terms of value, these TNCs accounted for about 15 per cent of all FDI during the same period, but this share is three times as high as in the latter half of the 1970s.^{1/} FDI by these TNCs first increased around the early 1970s, due to labour shortages in Japan. From the mid-1970s

^{1/} UNCTC data base on small and medium-sized transnational corporations.

Table 12. Number and geographical distribution of foreign affiliates of small and medium-sized transnational corporations based in 18 developed countries by country of origin and by sector of parents, 1986-1987^{a/}

Region/country	Total number of transnational corporations surveyed	Total number of foreign affiliates	Number of foreign affiliates per company	Distribution by group of economies (percentage)		
				Developed market economies	Developing market economies	Centrally planned economies ^{b/}
<u>By country of origin^{c/}</u>						
United States	171	426	2.49	82.6	16.9	0.5
Japan	120	438	3.65	46.6	52.3	1.1
Europe of which:	365	1308	3.58	92.1	7.8	0.1
France	23	63	2.74	92.1	7.9	-
Germany, Fed. Rep.	59	237	4.02	91.1	8.9	-
Italy	24	69	2.88	91.3	8.7	-
Netherlands	23	60	2.61	86.7	13.3	-
Sweden	28	113	4.04	99.1	0.9	-
Switzerland	24	95	3.96	91.6	8.4	-
United Kingdom	78	278	3.96	90.3	9.7	-
<u>By sector of parents^{d/}</u>						
Primary Sector	25	86	3.44	86.0	14.0	-
Manufacturing	514	1517	2.95	85.1	14.5	0.4
of which:						
Textiles & clothing	45	101	2.24	81.2	16.8	2.0
Chemicals	56	202	3.61	82.2	17.8	-
Metals	57	186	3.26	87.1	12.9	-
Technical equip.	105	328	3.12	88.4	11.0	0.6
Electrical equip.	64	172	2.69	78.5	21.5	-
Services	195	765	3.92	73.5	26.3	0.3
All industries	734	2368	3.23	81.4	18.3	0.3

Source: UNCTC, database on small and medium-sized transnational corporations.

- a/ Includes all identified foreign entities regardless of forms of organization (i.e., subsidiaries, branches, representative offices, etc.). Small and medium-sized transnational corporations here are those whose employment is less than 500 in all sectors. Banks, insurance and other financial companies are excluded.
- b/ Includes China.
- c/ Countries which do not appear in this table but are included are Canada, Austria, Belgium, Denmark, Finland, Ireland, Norway, Australia and New Zealand.
- d/ Sectors are classified according to the primary business of the company.

to mid-1980s, their foreign investment was directed towards developed countries, because of the strong demand for their products. Since 1985, due to the dramatic appreciation of the yen, small and medium-sized TNCs moved back to Southeast Asia once again. In the years 1986-1988, almost the same number of new equity investments was made in Southeast Asia as in North America, which together accounted for about 90 per cent of all investments. These two regions are also the largest host regions for large Japanese transnational corporations, accounting for about 70 per cent of their investment.

Other countries' SMEs do not figure particularly largely in the share of total foreign activities by these firms. In the US, the large size of the home market reduces the incentives to SMEs to go abroad, while in the UK, in spite of the challenge presented by the creation of a Single European Market in 1992, small and medium-sized firms seem too accustomed to serving local markets and too bound by local culture and traditions to venture abroad. Also, the UK's comparative advantage has declined in precisely those manufacturing industries in which internationalization of SMEs is occurring.

In contrast to the UK and the US, the smaller European countries, such as Denmark, Ireland, Sweden, Finland and Switzerland, have relatively large numbers of foreign affiliates owned by SMEs, due to the small size of their home markets.

III. MAJOR QUALITATIVE DETERMINANTS OF RECENT FDI FLOWS TO DEVELOPING COUNTRIES

A growing number of developing countries is competing in attracting foreign investment with a view to either enter into, or consolidate their position within, an increasingly integrated world production, trading and investment system. They are not, however, - as is often falsely assumed - competing for a given amount of FDI. While the share of developing countries in total FDI inflows has gone down significantly, the total amount of world FDI has risen dramatically in recent years. Therefore, whereas the developing country share between 1984-1988 declined from 37 to 10 per cent, the inflow of FDI remained roughly at the same level of slightly more than US \$11 billion. In view of the dramatic increase of total FDI, it is clearly misleading to consider FDI in terms of a constant pool available for distribution over different locations in the world. Indeed, FDI flows are not a zero sum game. To a large extent, they respond to perceived opportunities to achieve commercial success. The more opportunities are created, the more FDI may be generated. The following section, therefore, deals with the major determinants of FDI flows. First, the "supply side" of FDI is very briefly discussed, i.e. the conditions influencing FDI outflows in capital exporting countries, including the role of technological change in industry. Second, the key issues on the "demand side" are reviewed, i.e. requirements to be met on the side of FDI receiving developing countries if these countries are to increase FDI inflows.

1. The "supply side" of FDI

a. Conditions in capital exporting countries

As was shown above, the OECD countries are both the prime destination of FDI flows and their predominant source. Accordingly, the economic performance in the various OECD countries and in particular structural changes and technological innovations in their industries clearly condition the amount and composition of FDI, including FDI flows to developing countries.

The actual implications for developing countries of recent developments in OECD countries are mixed. On the one hand, the growing internationalization of industrial production in general bodes well for investments in the developing world, as does the recent growth performance of the OECD. Shifts between the major actors (countries and firms) and the entry of new actors add to the dynamism of the FDI process. On the other hand, the very same process suggests high rates of investment in the OECD area (and the socialist countries seeking to attach their economies to it) in the near future rather than in most of the developing world. The expansion of industrial economies based on high rates of innovation and advanced technical skills also suggests that FDI will require increasingly industrial structures and skills that are geared to such activities (see below). This makes for increasing polarization of FDI in developing countries between countries that can cater to high-technology, high-skill activities and those that cannot.

The evolving structure of OECD countries supports the above points. There are three broad points worth noting about current patterns of structural change. First, it is increasingly driven by advanced technology, based on a

series of technological changes (such as information technology, robotics, new materials, bio-technology) which require a close interaction between basic science, research, engineering and production, corresponding supplies of skills and worker training, and a complex support structure of supplies, services and information networks and institutions. Second, the role of services vis-à-vis manufacturing is growing, but these services are largely new and high tech in nature, often quite capital-intensive, and, in many cases, highly linked to manufacturing activity. Third, a structural development often noted with some surprise is the "downscaling" of many industrial activities (after a long period of capital-intensive specialization that led inexorably to greater economies of scale and larger plant/firm size) and the emergence of small- and medium-sized enterprises as a highly dynamic innovative segment of the industrial economy.

As far as FDI is concerned, these structural changes point, as outlined in chapter II, to an increasing sophistication of investments in manufacturing; to a growing share of services in FDI, again with large components of high levels of technical and skill requirements (though other growing service activities, as in retailing, processed foods, tourism etc. do not have those requirements); to the possibility of attracting efficient investments on a smaller scale than earlier possible; and, finally to the potential for tapping the small and medium enterprise sector in developed countries as source of technology, skills and capital.

b. Technological and organizational factors

World industry is in the throes of a major technological revolution. Scholars in industrial history characterize it as the fifth "long wave" of economic growth (the first four being early mechanization, steam power and railways, electrical and heavy engineering and Fordist mass production). It is based on information and communications, and is accompanied by developments in software, robotics, new materials (e.g. fine chemicals and ceramics), optical fibres and bio-technology. The fifth wave started essentially in the 1980s, though its origins go back much further, and is now making rapid inroads into the dominant technologies inherited from earlier technological revolutions. Its widespread implications for industrial productivity and competitiveness mean that patterns of industrial relocation will also be strongly influenced.

The resulting changes may be considered revolutionary in that they involve a shift of the ruling "techno-economic paradigm", affecting not just technologies or organizational structures in a narrow sense, but the entire way in which the productive system is set up, the "common sense" which prevails in engineering or managerial terms, and the complex of supporting service, infrastructural and training activities (UNCTC 1988; Mody/Wheeler 1990; Freeman/Perez 1988). Among various changes, the ones most relevant for FDI patterns are:

- reductions in production costs, particularly in the labour components of costs;
- new forms of organization at the firm and plant level;

- new patterns of sourcing for components and services, with proximity, flexibility and speed of response becoming of dominant importance;
- new profiles of labour skills;
- new patterns of investment location as traditional comparative advantages change;
- new infrastructural investments designed to provide appropriate externalities throughout the productive system and facilitate technological diffusion;
- tendency for new innovating small firms to enter new activities;
- tendency for large firms to concentrate in activities where microelectronics (and related key factors) are produced and intensively used, reinforcing their dominance in these sectors, especially as technologies stabilize;
- new consumption patterns for goods and services; and
- new types of distribution, marketing and service activities.

A number of important implications for FDI may be drawn from these emerging technological and organizational patterns.

First, the diminishing significance of inter-country differentials in labour cost as the key investment incentive means that some activities previously attracted to developing countries will no longer need to relocate away from high-wage developed countries. Furthermore, the distribution of low-cost seeking FDI in developing countries will be less oriented towards locations offering relatively unskilled labour and fairly rudimentary infrastructure (which served well for offshore assembly of semi-conductors or the sewing of garments) and more towards locations offering other advantages, as described below (Lütkenhorst 1988).

This does not mean that some traditional forms of low-wage seeking FDI (this role may increasingly go to NIC investors, as noted above) will die out completely, and that the less-industrialized developing countries will not continue to attract the simpler forms of industrial relocation. Clearly, some industrial relocation will not be affected for a long time to come by the new technological wave, and even activities which are prone to change will have an inertia which will disappear slowly. However, over the medium- to long-term the most dynamic elements of relocation will not consist of the simple labour intensive activities of the past.

Second, to the extent that future relocation will be based on the "fifth wave" technologies, the following factors will essentially determine FDI flows to particular locations:

- The availability, at economical cost, of high levels of skills relevant to the specific areas of production, design or management. The precise composition of skills required will depend on the industry and the elements of the production process transferred, but a basic minimum will be highly trained production skills, some

process-engineering, quality control, maintenance skills and management skills able to cope with emerging forms of organization. For more advanced activities or "deeper" levels of relocation, local design, research and scientific skills will be crucial. A number of the requisite skills will require not just formal schooling but also intensive on-the-job training as well as post-employment education. "There is an increasing awareness now that it is the education and skill level of the labour force which largely determine a country's competitive strength and resilience, its capacity to adjust to new sophisticated technologies and to reduce the economic and social cost of the adjustment process" (UNIDO 1989, p.18).

- Certain types of future FDI will depend on the availability, in fairly close proximity, of a variety of supporting firms, providing components, services (maintenance, machinery, software, consultancy) and backup of various kinds. Industrial efficiency increasingly requires individual firms to be highly specialized, with close interaction with a number of other firms of different specialization, working in close union to minimize inventory costs (i.e. the just-in-time delivery system), delays in information flows and the costs of product development. Process industries (paper, chemicals, metals, food) of the old type have relatively limited needs of this sort, and FDI in these will continue to be determined by traditional cost, market and material-supply factors. New industries in the electronic, electrical and mechanical engineering fields (which are becoming increasingly merged), on the other hand, are highly prone to the economies of specialization. In these areas, locations offering efficient support systems will be favoured over others.
- In addition to the support provided by other firms, new FDI will also require a support network of physical, informational and technological services. The need for efficient power, transport and, above all, communications for 'new wave' industries hardly needs emphasis. What is less well understood is the need for a network of institutions which, in Freeman and Perez's (1988) words, allow "appropriate externalities" to be generated. Thus new technologies need evolving standards, basic research, testing and quality control facilities, technological information banks, relevant university linkages, and so on, in order to function efficiently over the long term. While a certain level of FDI can proceed with a minimal technological infrastructure of this sort, its deepening and "striking roots" locally necessarily calls for a complex system of this sort. Local production facilities will increasingly undertake design and testing of very high quality products which cannot be done by one enterprise in isolation. Thus, FDI will gravitate to locations where the necessary externalities already exist or are being built up.

Third, the impact of rapid technological change on corporate strategies in the advanced industrial countries imposes its own locational needs on FDI. The growing need for very expensive, research and development (R&D) activities to support future expansion has led to the adaptation of global strategies by leading firms "designed to penetrate simultaneously the world's major market with new or updated products in order to amortize large fixed R&D

expenditures" (UNCTC 1988 p.57). This is a break from the more incrementalist expansion strategies followed earlier, and requires firms to keep a presence in large markets (rather than in low-cost locations). The scale of R&D has also forced many firms to enter into co-operative arrangements to share the risk of technology development and to benefit from cross-fertilization.

While international joint ventures, mergers and other co-operative arrangements have been around for some time the 'new wave' technologies have given a major boost to such arrangements in forms that did not exist previously (e.g. joint research, subsidized by governments, by the largest TNCs in frontier areas of technology). This has increased inter-firm linkages in ways that may threaten competition. It has also reinforced the preference for investing in the richer, more advanced and technologically better endowed locations.

The upshot of all these technological and organizational changes is clear. The 'new wave' FDI will increasingly concentrate on host countries that offer advanced production, technical, scientific and managerial skills, infrastructure, broad technological support, developed supplier networks, excellent favourable locations and, possibly large internal markets. Needless to say, all this has to go with low relative overall costs, political stability, efficient bureaucracy and good macroeconomic performance.

Traditional forms of FDI will not, as noted, disappear: low-wage seeking investments will continue in several activities, as will import-substituting investments behind high protective barriers. However, these are likely to diminish in significance beside investments based on 'new wave' technologies (which will also spread into older technologies), and in relation to investments which are less highly protected. Efficient 'new wave' industries will gravitate to countries already well down on the "learning curve" of industrial capabilities. "In consequence, the poorer developing countries will find themselves in a vicious circle. Left aside by foreign investors because of their not meeting the requirements for technologically more advanced production, they will be largely excluded from the only realistic source of technological upgrading, viz., foreign investment" (UNIDO 1989 p.24). The following sections deal with the factors that affect the ability of countries to attract FDI and policy issues arising from the discussion.

2. The "demand side" of FDI

a. Developing country policies towards FDI^{1/}

"Changes in the government policies of developing countries toward FDI in the past five years have confirmed and strengthened an already apparent trend towards liberalization of inward FDI regulation. Consolidation of this attitude is shown both by the extent of regulation changes and by their wide diffusion throughout the developing world... Countries seek primarily to encourage inward FDI by reducing obstacles, restrictions and requirements and by granting guarantees and incentives; the effort to control its various manifestations or effects becomes relatively less important as an aim of FDI regulation" (UNCTC 1988, p.262).

^{1/} This section deals with policy changes by summarizing current trends. Country case studies are presented in the Annex of this study.

This widespread move to welcome FDI marks a change from the 1960s and 1970s when foreign investors tended to be regarded with suspicion, their superior technology and skills often taken to be threats to indigenous development and their integrated production structure to be channels of tax evasion. The ample flow of bank credit in the 1970s permitted developing countries to overlook the potential for capital transfer by FDI. The general pursuit of industrialization by protected, inward-oriented strategies concealed many strategic inefficiencies, and also induced foreign affiliates to participate in a process which generated more rents than dynamic and competitive growth.

With the onset of the debt crisis (and the accompanying recession) in many developing countries, attitudes to FDI altered dramatically. But it was not just the debt burden which was the agent of change. It had become widely recognized over the 1980's that export-oriented industrialization strategies were more conducive to sustained, efficient industrial growth than previous inward-looking strategies, and that FDI could play a valuable role in promoting such growth. The acceleration of technical change in industry led many countries to realize that they needed much more foreign technology to overcome the large gaps that had developed in their competitiveness. Moreover the awareness grew that simply importing new equipment and licences did not always lead to efficiency: improved managerial, technical and engineering skills were also required. Since TNCs were generally the major (and in some very advanced technologies the only) sources of new technology, and were equipped to provide the entire package of knowledge, capabilities and training, even countries without pressing debt problems and with traditionally hostile attitudes to FDI (India and China being the best examples) amended their policies in this area. A generally more favourable attitude to the private sector, supported by privatization programmes in some countries, strengthened this tendency.

The generally warmer climate for FDI did not, however, mean that all developing countries adopted "open door" policies. A great deal of variation remained in regulations concerning foreign entry; more importantly, the interpretation and implementation of regulations varied greatly. Some of the differences lay in inherited attitudes and ideologies that sharply circumscribed the role that foreign investors could play: India, for instance, still insists on 60 per cent local equity holding in all but a few exceptional cases, and, despite liberalization and streamlining, still has a tight screening process which has kept FDI inflows down to very small levels (approvals rose from under \$10 million per annum in the 1970s to around \$100 to \$160 million per annum in the late 1980s, but these are tiny compared to inflows in South East Asia).

Some differences are accounted for by indigenous strategies of, and success with, technology development. Countries that have made major progress in building up domestic capabilities, while becoming more attractive as investment locations, could afford to be more selective on foreign entry. Thus, the Republic of Korea adopted, in its early stages of industrialization, a highly nationalistic strategy which kept FDI inflows tightly constrained. It built up its chaebol to a commanding position in domestic industry and export trade, supporting them with a variety of interventions. They have now reached a position of strength such that recent liberalization (since 1984), while increasing FDI inflows somewhat, does not challenge their industrial

dominance. Some countries, like Brazil, while keeping to a well-established policy of welcoming FDI, have restricted foreign entry in sectors (e.g. "informatics") marked out for indigenous technology development.

In sum, the interaction of different strategies, traditions and bureaucratic efficiency have resulted in a map of the Third World which still shows a high level of variation in policy regimes facing foreign investors. Apart from conditions for entry, concerning specified equity shares, permitted sectors, localization conditions, export requirements, and the like, there are major differences with respect to investment incentives given to foreign investors.

Even when incentives given by different countries cancel themselves out, there is a classic "prisoner's dilemma" that makes it still worthwhile for an individual country to offer incentives to attract a larger share of available FDI. Many efforts have been made to curtail competitive incentive package by developing countries, but so far with limited success. This is true despite - or perhaps because of - evidence that more liberal policies and more generous concessions to FDI have not halted the move away from developing to developed countries. To quote the conclusions on recent policy changes reached by UNCTC:

"... there is no conclusive evidence as to the actual impact of liberalization policies on the flows of FDI and technology. Available information in Latin America would suggest that no spectacular changes in those flows can be expected as a result of the more favourable rules applied. Those changes may perhaps facilitate the execution of investment or technology transfer plans, but are less likely to determine the initial decision to invest or transfer technology. Existing studies on tax incentives have demonstrated that in a significant proportion of cases they have a limited impact on the investment-decision process. Conversely, the actual effect on FDI of the presence of limitations and restrictive policies has never been clearly established. The general and specific conditions prevailing in the world economy and in the country concerned along with the strategies of particular TNCs seem to have been the major determining factors of investment and technology flows. The measures of liberalization may then be seen primarily as signals addressed to TNCs, to attract their attention, as it were". (UNCTC 1988, p.279.)

No doubt the trend to more welcoming policies creates an initial necessary condition for the encouragement of FDI inflows, but it is by no means a sufficient condition. In view of the technological and other supply-side factors reviewed above, and various other demand-side factors to be discussed below, it may be safely concluded that policy reforms on FDI by themselves are unlikely to have much impact on industrial relocation in developing countries. Any noticeable impact must result from a combination of appropriate policies with broader economic, technological and strategic considerations.

b. Economic conditions in developing countries

FDI flows are extremely sensitive to economic conditions and economic policies in recipient countries, and the events of the 1980s have brought this sensitivity into sharp focus. As the World Bank President memorandum on the subject states:

"The decline in FDI flows to developing countries after 1982 occurred for several reasons. The debt crisis precipitated an erosion of confidence in developing countries' creditworthiness and attractiveness as investment sites, and recession and continuing macroeconomic instability in many developing countries further undermined investor confidence in these economies. Much FDI has been oriented toward producing for local markets, so that stagnation and macroeconomic instability provided further disincentives to new investment. So did the decrease in attractiveness of large, resource-based projects after 1981; part of the sharp rise and decline in flows to developing countries can be attributed to FDI flows to oil-producing countries. For non-oil developing countries, FDI flows peaked at about \$15 billion in 1981, fluctuated at \$11 billion until 1986, and then rose to \$14 billion in 1987, largely as a result of dollar depreciation. Finally, profitability has improved in developed country markets and this has caught investors' attention. The decline of the dollar since 1985 has induced a significant inflow of foreign investment into the United States to purchase land and other assets and create new capacity. Moreover, anticipation of a large internal market within the EC by 1992 is also stimulating investment in Europe by domestic and foreign firms. However, as demonstrated by recent pickups in FDI flows noted above, it is important to remember that the factors that have constrained FDI flows to developing countries during the 1980s are not immutable features of the world economy or of the economies of individual developing or developed countries. Indeed, the variations in the rate of FDI inflows across countries are at least as striking as the variations over time." (World Bank 1989.)

The variations between developing countries just noted have arisen, in this context, from differences in their macroeconomic management (especially of external debt, but also of internal inflation and exchange rates); their other economic policies (price controls, taxes, attitudes to the private sector, intellectual property rights, labour laws and conditions, stability of incentives and so on); their political stability; and their anticipated economic and export performance. The diminishing flow has been directed increasingly at countries that had a stable, transparent and predictable environment with good prospects for overseas investors to earn and repatriate healthy returns and to integrate the new locations into their global strategy as determined by technological and market factors. These are well-known factors in the FDI literature which need little emphasis here.

One aspect of economic policies that needs special attention is their trade orientation. As mentioned earlier, there has been a growing disillusionment among developing countries and development economists with the experience of inward-looking industrialization policies. Much of FDI in

manufacturing has traditionally gone into import-substituting ventures, generally protected by high barriers from world competition and in a high proportion of cases unable to achieve the levels of efficiency required to enter global competition. Some cases do exist, especially in the industrially advanced countries (Brazil and Mexico, for instance), of import substituting foreign ventures becoming major exporters when given adequate incentives, access to competitive inputs, an appropriate support structure and the opportunity to reap scale economies (e.g. in the automobile industry). However, these are the exceptions which serve to show how much has to be done before inward-oriented regimes can transform themselves into competitive ones.

Since almost all developing countries now aim to promote manufactured exports, and look to FDI as an important mechanism to boost such exports, it is important to bear in mind the consequences of this change on FDI prospects. First, there will clearly be an "adding up" problem. Given the total size of markets for particular manufactures (and given constraints placed on imports of these from developing countries), every country cannot hope to become a major exporter. But other problems may arise long before the demand constraint is reached in most developing countries: essentially their infrastructures, skill endowments, industrial support systems, and market sizes (quite apart from the economic conditions noted earlier) simply make dynamic export activity unfeasible.

This creates a dilemma for FDI policy in many developing countries which many analysts have not faced squarely. If highly protected, import-substituting foreign investments of the old type are really "cut" for most developing countries, because of sagging domestic markets or, in view of the need to restructure industrial competitiveness, future flows of FDI may be even more skewed geographically than before, with a higher concentration on the few locations that are "efficient". Simply reducing protection and "getting prices right" will not be enough in most countries to induce the enhancement of skills, capabilities, support systems, etc. needed to attract export-oriented FDI. No amount of policy reform directed at foreign investors (better investment codes, faster procedures, liberal treatment, tax holidays) or at macroeconomic variables (inflation, wages, exchange rates) is likely to offset structural economic weaknesses. Yet this seems to be the assumption in policy advice coming from various sources.

In sum, the changing economic environment of the 1980s has brought to the fore many problems with industrial relocation via FDI. Those arising from the debt crisis, recession and political instability are the ones that attracted most attention. These affect FDI flows to some countries that were previously major destinations, and also to many others that were always peripheral to overseas investors: in this, they partly distorted and partly strengthened underlying propensities generated by the technological forces shaping FDI. There were other changes that are less publicized in relation to FDI. The general shift from protected, inward-oriented policies to more outward-looking ones, whether induced by structural adjustment programmes or, more gradually, by governments under their own volition, is likely to raise the skewness of FDI. With some exceptions (such as China), the ongoing strategic shift will,

in the medium term, direct more flows to countries best placed to take advantage of new technologies. Other countries may benefit in the longer term, if they are able to mount strategies that bring their capabilities to the minimum levels required by the emerging new technologies and organizational forms.

c. Industrial capabilities in host countries

The industrial capabilities that are relevant to the attraction of FDI are those that determine the skills available to prospective investors directly, as well as those affecting the efficiency of local suppliers, consultants, service firms and the physical and technological infrastructure. In a general sense, therefore, the level and efficiency of development of the domestic industrial structure, including a thriving locally-owned sector and a network of supporting public or private institutions, indicates the availability of the capabilities that can allow foreign investors to set up competitive modern facilities.

There are several ways in which industrial capabilities in developing countries can be measured. The size and length of existence of the industrial sector is an obvious indicator: however, it does not capture the efficiency factor. Large industrial sectors may be technologically backward, and, if highly protected, may possess the wrong kinds of skills and attitudes needed for investment from abroad. Moreover, they may operate with very low levels of technical proficiency if the human capital base is inadequate. Export performance in manufactures is another possible indicator. While creating a strong presumption in favour of industrial efficiency, it has to be analyzed further to show whether exports actually embody high levels and diversity of local skills, whether local enterprises (and local technical efforts) are involved, and the 'depth' to which local capabilities have developed.

A more direct measure of industrial capabilities is the human capital structure created by a country's education and training system, and the extent of technological effort undertaken locally in terms of R&D expenditures. In combination with data on industrial production and export performance, these figures can provide sound indicators of how well-g geared particular countries are to attract FDI in the future.

It may be relevant here to consider Tables 13 and 14, containing two sets of data on investments in human capital and formal technological efforts in a sample of NICs, "new NICs" and one Sub-Saharan African country (Kenya) (Lall forthcoming). Table 13 on human capital shows that the two larger East Asian NICs, the Republic of Korea and Taiwan Province, which have arguably the best industrial performance in the Third World (in terms of industrial growth, diversity, depth, competitiveness and indigenous participation), also made the highest investments in the creation of worker skills (secondary and vocational education) and higher level skills (especially scientific and technical schools). The two smaller NICs, Hong Kong and Singapore, have very high levels of unspecialized worker training (secondary schooling) but less vocational training, and fairly advanced levels of high level technical training. However, Hong Kong clearly lags in the latter behind Singapore, reflecting its more specialized and "lighter" industrial structure. Singapore, while highly

Table 13. Indicators of investments in human capital in selected NICs, (selected years)

	<u>Republic of Korea</u>	<u>Taiwan Province of China</u>	<u>Hong Kong</u>	<u>Singapore</u>	<u>Brazil</u>	<u>Mexico</u>	<u>India</u>	<u>Thailand</u>	<u>Indonesia</u>	<u>Kenya</u>
Percent Age Group Enrolled in:										
Primary Education										
(1965)	101	97	103	105	108	92	74	78	72	54
(1985)	96	100	105	115	104	115	92	97	118	94
Secondary Education										
(1965)	35	38	29	45	16	17	27	14	12	4
(1985)	94	91	69	71	35	55	35	30	39	20
Tertiary Education										
(1965)	6	7	5	10	2	4	5	2	1	0
(1985)	32	13	13	12	11	16	9	20	7	1
No. of Tertiary Students per 100,000 population (latest year)	3606	2080	1410	1406	1140	1508	776 ^a	1998	600	114
No. of Tertiary Students in GSE^b ('000) (Year)	585 (1987)	207 (1984)	36 (1984)	22 (1983)	535 (1983)	563 (1986)	1443 (1980)	360 (1985)	235 (1985)	12 (1985)
As % of Population: Total	1.39	1.06	0.67	0.89	0.40	0.70	0.21	0.06	0.14	0.06
Urban	2.02	1.36	0.72	0.89	0.57	1.02	0.97	3.90	0.53	0.30
No. of Students in SHE^c ('000)	320.6	151.7	27.5	16.2	323.3	336.9	1269.9	n.a.	137.3	4.8
As % of Population: Total	0.76	0.78	0.51	0.73	0.24	0.42	0.19		0.09	0.02
Urban	1.10	1.00	0.55	0.73	0.34	0.59	0.86		0.33	0.12
No. of Students in Engineering Only ('000)	227.6	128.7	21.1	15.4	164.6	281.8	397.0	n.a.	109.5	3.3
As % of Population: Total	0.54	0.63	0.41	0.61	0.13	0.35	0.06		0.07	0.02
Urban	0.78	0.85	0.42	0.61	0.17	0.50	0.27		0.27	0.08
No. of Students Enrolled in Vocational Training ('000) (Year)	814.5 (1986)	404.6 (1984)	31.7 (1984)	9.4 (1984)	1481.0 (1985)	853.6 (1985)	397.7 (1981)	288.0 (1984)	1061.3 (1986)	7.8 (1985)
As % of Population of Working Age	3.06	3.24	0.86	0.54	1.83	2.0	0.07	0.96	1.14	0.08

Sources: World Development Report, 1988.
 UNESCO, *Statistical Yearbook 1988*, Paris, 1989.
 Government of Republic of China, *Statistical Yearbook of Republic of China 1988*, Taiwan.
 Government of Republic of China, Ministry of Education, *Educational Statistics of Republic of China, 1984*, Taiwan.

Notes:

- ^a 1980.
- ^b General Science and Engineering fields: natural science; mathematics and computer science; medicine; engineering; architecture; trade, craft, transport and communications; agriculture, forestry, fishery.
- ^c Natural science, mathematics and computer science, engineering.

Table 14. Formal technological effort in selected NICs and Japan
(selected years)

Country	Year	Total R & D	R & D in Productive Sector	R & D financed by Productive Enterprises	Scientists/ Engineers in R&D per million Population
Brazil	1982	0.7	0.2	0.1	256
India	1984	0.9	0.2	0.1	132
Indonesia	1984	0.3	n.a.	n.a.	152
Kenya	1975	n.a.	n.a.	n.a.	20
Korea, Republic of	1987	2.3	1.5	1.9	1,283
Mexico	1984	0.6	0.2	0.005	217
Singapore	1984	0.5	0.2	0.2	960
Taiwan Province	1986	1.1	0.7	0.6	1,426
Thailand	1985	0.3	n.a.	0.04	150
Japan	1985	3.5	2.4	2.7	4,569

Source: UNESCO, Statistical Yearbook 1988, Paris, 1989.
 Government of Republic of China, Science and Technology Data Book,
 Taiwan, 1987.
 Government of Japan, Ministry of Science and Technology, Indicators
 of Science and Technology, Tokyo, 1986.
 Ministry of Science and Technology, Introduction to Science and
 Technology, Seoul, Republic of Korea, 1988

dependent on FDI for technological inputs, has to provide high level engineering manpower to enable foreign affiliates to move into very skill and technology intensive areas.

The larger NICs all suffer from large areas of inefficiency in industry (combined with pockets of efficiency and dynamism), and a comparison with the larger East Asian NICs shows how far they have to go if they are to bring the general level of industrial performance to their levels. India and Brazil seem to operate large parts of their extremely diverse industrial structures with very low inputs of technical skills; in particular, India's vocational training lag suggests very low levels of worker competence. Similarly, Kenya data show graphically the kind of skill lags suffered by African countries: and Kenya is a star performer in the context of Sub-Saharan Africa.

The figures in Table 13 do not take into account such important factors as the quality of education, completion rates at school or university, the relevance of the curriculum or the extent of post-employment training given to workers. It is likely that these considerations would increase the lead of the East Asian countries.

Turning now to R&D effort in the NICs, Table 14 sets out total R&D, R&D in the productive sector and R&D financed by productive enterprises, as percentages of GNP. It also shows the ratio of scientists and engineers involved in R&D to total population. Japanese figures are given for comparison. While formal R&D is not an accurate measure of total technological effort in industries and does not measure the level of development of the technological infrastructure, it does provide a rough indication of both. The former is particularly related to R&D financed by productive enterprises, since at advanced levels of industry formal R&D in the firm becomes necessary to absorb new technology as well as to generate it.

The two larger East Asian NICs again stand out, with the Republic of Korea in the lead by most measures. Its higher degree of self-reliance and greater emphasis on heavy industry have necessitated this high level of R&D to establish international competitiveness. This has, in turn, given the country an impressive base of capabilities to absorb, build upon and even innovate on a range of modern techniques. Other NICs lag well behind. They may thus be able to receive and operate new technologies by FDI, but not to develop it further over a broad spectrum. Singapore, despite its very high reliance on TNC technology, invests more money and scientific manpower than the larger NICs. It is this capability which is inducing TNCs to shift some innovative activities to Singapore.

The evidence discussed above is only illustrative, yet serves to underline two important points: first, among the NICs, the record of success in absorbing and efficiently deploying industrial technologies is highly correlated with efforts to develop local capabilities. Healthy capabilities develop from an interaction of incentives (export orientation, but combined with interventions to protect learning processes in difficult technologies) with skill creation and technological effort (these also requiring government intervention to overcome "market failures" in capital, education and information markets). The very same base of capabilities developed to deal with previous technologies will serve to absorb new technologies in the future (whether through FDI or by alternative means depending on the country's strategies).

Second, the development of industrial capabilities is not evenly distributed, between the NICs or in the Third World at large. It has depended on large, costly investments, in infrastructure, education, research and institution building, on the effectiveness of government interventions in these activities, as well as on the provision of appropriate incentive structures. In view of the long gestation periods involved in capability development and the inherent complexities of policy support, it is unlikely that the base of capabilities needed to attract "new wave" FDI will change dramatically in the short run. It has to be a slow, incremental process in which past performance strongly influences future growth. This reinforces the conclusion reached in the discussion of policies that liberalization measures ("getting prices right") by themselves will not greatly alter the pattern of FDI flows. The countries which have done well in the past will continue to do well in the future, and, in the longer term, some less industrialized countries will become major FDI locations if they build up their skills and support systems (the policy implications are discussed in the following sections).

The discussion so far has stressed education, training and technological effort. It need hardly be said that physical infrastructure development is an equally important part of building national capabilities. The significance of high-quality communications, transport, power supply and other utilities are well known to all policy makers. What may need emphasis is the need for institution building in this context. Efficiently functioning markets need a variety of institutions to support them:

- in the administrative sphere, institutions to deliver efficient processing of necessary formalities, appropriate regulation to ensure that monopoly power is not created or abused, fair tax collection, transparent and stable policy regimes, and the ability to take unpopular measures where necessary;
- in the technology sphere, institutions to provide "public goods" such as information flows, standards, basic research, linkages between industry and universities, extension services to small and medium enterprise, collaborative efforts between individual enterprises where economies of scale or riskiness of research require this;
- in the labour sphere, institutions to promote labour training and retraining, ensure labour mobility, hold down restrictive practices;
- in the financial sphere, institutions to mobilize and encourage savings, allocate them economically while supporting high risk activity with long-term payoffs, meet the needs of smaller borrowers.

It is evident that institution building and capabilities development are closely intertwined. The complexity of skills, knowledge support structures and administrative back-up needed for industrial development can be provided

only if appropriate institutional structures emerge^{1/}. Some may emerge autonomously, under pressure of market forces or by co-operative action by industrialists, workers or bankers. However, this may be insufficient, or may take too long: in this case, governments have to step in to set up or support institutional development. Other institutions fall naturally within the government's purview: they are concerned with the formulation and implementation of policies or deal with public goods which private bodies have no incentive to supply. It is generally acknowledged that the worst market failures in capability development occur in human capital and technology development (Stiglitz 1989). Private agents tend to underinvest or invest wrongly in skill development or building technological capabilities because of uncertainty, lack of foresight, lack of information, externalities (lack of appropriability of a firm's investment in training or R&D), and complementarities (one firm's investments are productive only if other enterprises also invest).

This concludes the discussion of factors on the recipient side affecting relocation via FDI. It must be admitted that the picture that emerges is not very reassuring for much of the developing world. It is likely that the traditional "inequity" in FDI flows to developing countries, recently exacerbated by macroeconomic developments and technological progress, will persist or increase. Some recent policy changes may offset this slightly by removing administrative obstacles in the way of foreign investments, but others may strengthen it (by offering lower levels of protection). More importantly, policy reforms will, at best, have a very gradual effect on the basic determinant of the ability to attract "new wave" FDI - industrial capabilities. For some time to come, therefore, industrial relocation will continue to favour the better-off, industrially more advanced, developing countries. A few newcomers will join the fortunate group, but a large number of less developed nations will continue to lie outside the dynamics of relocation. But the picture is not static: progress, however slow and difficult, must continue, and policies must be geared to long-term objectives.

^{1/} In many developing countries a short-cut approach to establish the required institutional preconditions has been the establishment of export-processing zones (EPZs). While such zones in many cases have succeeded in attracting FDI and generating export earnings and industrial employment, they have also been characterized by inherent limitations in terms of their overall developmental impact. As EPZs have been a tailor-made instrument to attract simple, labour-intensive production facilities, their future role needs to be reassessed in the light of the increasing technological sophistication of FDI in most developing countries (Lütkenhorst 1988; UNIDO 1988; ILO/UNCTC 1988).

IV. POLICY IMPLICATIONS FOR DEVELOPING COUNTRIES

This section outlines some of the policy implications of the earlier analysis. It is arranged under the following headings: entry conditions; attraction of small and medium enterprises; promotion of local enterprises; and the development of industrial capabilities.

1. Entry conditions

Host countries have to do more than adopt a hospitable attitude to foreign investors. Apart from offering a stable and promising economic and political environment, governments should pay close attention to the regulatory framework and procedures adopted towards prospective investors.

"The transparency of FDI regulations is important, since investors need to know in advance how host regulations will be applied to such particular investment. If there is a high degree of variability in the interpretation of these regulations, or if it is necessary to obtain the approval of multiple host government agencies (which may disagree among themselves), then an otherwise hospitable host country environment will remain unattractive. Steadiness in the FDI regulations is also important to investors: uncertainties created by constantly changing FDI regulations can be a significant deterrent to FDI flows adding to the normal commercial risks of doing business plus additional uncertainties by virtue of being foreign to the host country. Consequently, those host countries that exhibit not only hospitable but also transparent and stable FDI policies provide investors with especially attractive conditions for FDI. These conditions extend to the treatment of expatriates, and include timely approval of work permits for reasonable durations" (World Bank 1989).

Among entry conditions that particularly affect FDI are: controls on foreign exchange transactions (governing import of inputs and payments of dividends, royalties or principal); investment incentives (which may cancel out between countries but still affect the choice between them); subsidies for training or borrowing; effective rates of protection against imports; access to world-price inputs (critical for export-oriented activities); and freedom to choose ownership shares (experience shows that rigid rules governing foreign equity shares or their dilution over time are harmful to FDI inflows).

The most significant of these conditions in the context of future FDI trends are likely to be those concerning foreign exchange transactions, access to world price inputs and the freedom to choose ownership shares. It is to be hoped that competitive incentives for FDI will be phased out by some form of international or regional agreement. Countries seeking to promote FDI will then focus on "marketing" their country effectively, in terms of targeting activities or investors likely to be interested, providing information specific to these investors' needs, and a package of facilities (but without excessive tax or other concessions).

In return for granting privileges, increasing use should be made of "performance guarantees", tying the investors to undertaking agreed actions to raise local skills, undertake local research, buy local inputs or export specified amounts. Performance guarantees are an increasingly common feature of FDI negotiations even in developed countries, especially when very large

projects are involved, and it is appropriate for developing countries to build them into their bargaining strategies. However, like any bargaining condition, the imposition of difficult conditions may simply involve a trade off in some other area; a very well-informed, sensitive and pragmatic approach is needed rather than a heavy-handed or rigid set of rules.

The trend towards increasing privatization of industries in a number of developing countries opens up new avenues for attracting FDI. Countries like Pakistan, Guinea, Mexico, Philippines and Togo have used privatization as a means to bring in direct investment or other forms of foreign involvement. While privatization raises a host of difficult issues of ideology, procedure and regulation, which entail a careful use of the tool, it is evident that it is an important potential mechanism for certain kinds of FDI - and one which will be used significantly to promote flows to Eastern Europe in the near future.

2. Attraction of small- and medium-size enterprises (SMEs)

An earlier part of this study noted some differences between large TNCs and small and medium investors. The latter offer certain special benefits to developing host economies in their areas of specialization, and recent technological trends seem to be giving a new boost to their innovativeness and dynamism, both in traditional (low technology) areas of investment and in some newly-emerging high technology (but not scale-intensive) activities.

The main problem in attracting SMEs from both developed and developing countries lies in imperfections in information, skill and insurance markets. Thus, SMEs tend to be much less familiar with operating conditions, both economic and political, in foreign countries than large firms, which accounts for their investments in neighbouring countries or those with ethnic or cultural connections. They find it costly to collect, analyse and compare data on different possible locations. They also find it more tiresome to cope with unfamiliar bureaucracies and legal requirements. If they do find suitable locations, they generally find it hard to spare the high-level manpower to send (in adequate quantity) to ensure the success of the venture. They may also find it difficult to recruit the necessary manpower from their home country or other labour markets. Finally, they tend to be more risk-averse than large firms because the potential cost of failure abroad may pose a much larger risk to their overall profitability than to a large firm. In the absence of insurance for (non-commercial) risk, therefore, even a slight hint of uncertainty may deter their investments.

There are various possible ways to overcome these market imperfections. Many developing countries have set up investment promotion offices in major home countries to provide information and assistance to prospective investors. Trade missions and aid agencies from the rich countries also promote foreign ventures by SMEs from their economies, as do industry associations on both sides. Trade fairs, conferences, symposia and high-level political meetings are often also used to provide information, inspire confidence and establish direct contact. A number of private agents provide technology brokerage services or arrange joint ventures in specific regions or industries. International institutions (like IFC or MIGA) try to promote FDI

in all its forms. Similarly, political risk can be insured by home country government or by MIGA, which also offers services in resolving international business disputes.

All these measures need to be greatly strengthened and expanded before they reach the great bulk of potential SME investors, especially those located in large countries away from the major metropolitan centres. The problem of information (in which coping with bureaucracy is included) is the major one, and there are no easy or cheap solutions. Much of the investment has to come from the host countries themselves, though there is also scope to improve the quality of their existing "marketing" efforts.

Two points need to be made here. First, a significant proportion of SMEs can come to developing countries as ancillaries to major TNCs, thus one focus of SME promotion could be those large investors who then induce their existing suppliers to relocate with them (Phongpaichit 1988). Second, a very effective method of promotion may be to use local businessmen in host countries (rather than official centres located in capital cities) to go to investing countries and meet SMEs through trade associations or other bodies. Since the most likely route for SMEs entry is by joint ventures, an aggressive policy of sending out local firms to seek prospective partners is likely to yield much higher dividends than a more passive approach (of advertising or holding general meetings).

To the extent that the promotion of joint ventures is a marketable service, it may be expected that private brokerage services will grow rapidly. These should be encouraged and promoted, not just to provide information, but a whole package of services, also including finance, dealing with bureaucratic requirements, privatizations, arranging for recruitment and personnel relocation, arbitration and so on.

Apparently, the importance of SMEs to developing countries is being increasingly recognized by these countries' governments themselves. Several countries have changed their regulations to attract SMEs from abroad. In Indonesia, regulations on minimum investment by foreign firms were abolished in 1988. This followed similar revisions by the Republic of Korea and Chile.

Some governments in developing countries have initiated specific schemes for the promotion of joint ventures or other forms of co-operation between their SMEs and those from developed countries. For example, the Korean Small and Medium Industry Promotion Corporation, in collaboration with "Association pour la Promotion et le Développement Industriel de France", set up a programme for transfer of technology and joint ventures between the Republic of Korea and France in 1984. The governments of Argentina and Italy concluded a treaty which seeks to mobilize \$1.5 billion for private investments through joint ventures between SMEs. In Mexico, Nacional Financiera (the State Bank) has created co-investment funds with several European countries to promote joint ventures between SMEs.

3. Promotion of local enterprises

The entry of FDI may have significant beneficial effects on domestic enterprises. Those that are linked to it in the vertical production chain, as suppliers of goods and services or buyers of the affiliates' output, can

benefit from the growth in production and from transfer of technology or skills from the affiliate. Those that compete with it can benefit from efficiency spillovers, because of the competition provided, the 'role model' set, the leakage of skills and knowledge, a greater exposure to international markets, and the upgrading of common suppliers or buyers. The business environment at large can benefit from the affiliates' linkages to the science and technology infrastructure and a generally "progressive" act of attitudes. The presence of manufacturing FDI can attract a host of complementary FDI in services that promotes greater efficiency and dynamism in domestic industry.

However, the entry of a large powerful foreign presence in a developing country's industrial sector is not an unsullied advantage. Many of the benefits just noted accrue to an economy which already has a thriving indigenous sector that can benefit from the competition, linkages and externalities provided by foreign entrants. Countries that have weak or fragmented indigenous industrial entrepreneurship may find its development inhibited by a large foreign sector. The difficulties of local development will vary with the entry barriers posed by technological complexity and economies of scale. Local enterprises may do well, *ceteris paribus*, in activities with simple technologies and low capital requirements, while foreign firms may dominate more demanding activities. Some countries may then feel (the Republic of Korea being a good example) that restrictions on foreign entry are warranted for a period, in which local capabilities are built up in heavy industry.

It appears, therefore, that a strong indigenous entrepreneurial class in a diversity of industries is necessary to reap the greatest advantages of FDI, and that FDI has to be selectively permitted to allow such a class to emerge. Once the class is established, FDI can be permitted much more freely, or can be encouraged as joint venture partner to local enterprises.

This is not, of course, the only possible strategy to follow to promote industrial relocation. Small economies may well decide that the cost of protecting domestic entrepreneurship is too high, and so base their strategy entirely on FDI. This is the course pursued by Singapore with striking success, with all its policy efforts directed to providing the infrastructure, skills and macroeconomic environment needed for attracting increasingly sophisticated forms of FDI. However, the Singapore strategy may not be acceptable to larger countries, and there may be socio-political constraints to accepting, from the start, a subsidiary role for domestic enterprises. In many cases, therefore, the kind of selective strategy to promote local entrepreneurship described above would be more acceptable.

It is clear that the establishment of an efficient interlinked industrial system is a long-term effort involving not only difficult policy choices but also substantial financial resources beyond the reach of many developing countries. Those countries have to succeed in attracting FDI before such an overall system is in place - and indeed, FDI is often sought with a view to contribute to its creation, i.e. as a means to enhance overall industrial capabilities. For those developing countries, it would be essential to concentrate efforts in the beginning on entrepreneurship development. Without the stimulation of efficient local entrepreneurship in different fields of industry, the attraction of foreign investment, in particular in areas of higher technologies, may be bound to fail. Firstly, the establishment of joint ventures is contingent upon the availability of attractive local

partners. Secondly, small-scale companies often act as important suppliers of specialized parts and components which can be an additional investment incentive for foreign companies. Thirdly, and most importantly, it is only through domestic entrepreneurship that significant spread effects can be generated and utilized for overall industrial development.

Once a strategy of entrepreneurial development is in place, and the activities to which it is to be applied demarcated (some areas may still be left open for FDI if these are felt to lie outside local capabilities), what can the government do to promote such development?

Entrepreneurial development may be seen as a learning process, in which incentives, capabilities and institutions again play crucial, interlinked roles. The incentives to healthy learning arise from a competitive environment, in which prices are relatively undistorted, entry and exit unobstructed by policy constraints, technology flows freely permitted and ownership patterns (say between public and private, or large and small scale) not heavily biased by policy. However, this is not to say that ideal competitive conditions are best produced by free trade: there are strong arguments for infant industry protection to help overcome the costs of mastering difficult technologies. The development of entrepreneurial capabilities largely arises from "learning by doing", but the more formal aspects can be taught in business schools and the like. In a broader sense, the encouragement of domestic enterprise requires the growth of industrial capabilities generally; this is considered below.

Many developing countries have sought to encourage entrepreneurial development by offering excessive protection, on the one hand, and imposing a variety of business regulations to control the abuse of market power, on the other hand. They have tried to force domestic enterprises into pre-selected activities, to regulate size, product range and technology, to restrict entry and exit, to control prices and employment, and to specify the source of inputs. Many of these regulations have bred anti-competitive attitudes and led to inefficient practices: in the context of entrepreneurial learning, they have misguided the direction, content and pace of capability acquisition.

The most important step in promoting entrepreneurship is therefore to remove policy-induced constraints to private sector development. By giving the right environment and policy signals to local enterprise, the government can also transmit a clear positive signal to prospective foreign investors. The nature of response, both internally and externally, will then depend on the development of capabilities and supporting institutions, and the entrepreneurial capabilities that exist already.

The promotion of entrepreneurship need not to involve passively leaving everything to the market. A number of positive measures are necessary: to protect the learning process, to remedy failures in capital, labour and technology markets, to create large size units where necessary, to provide extension sources, to provide a technology infrastructure, and so on. Promotion is also intervention, but it is intervention of a very different sort from that practised in many developing countries (thus the Republic of Korea actively promoted its private businesses, while India held back a thriving entrepreneurial class).

4. Development of industrial capabilities

The main elements of a strategy to develop industrial capabilities have already been suggested above. The objectives are clear: to improve worker, technical, scientific and managerial skills; to promote technological activity; to develop a system of industrial support, with suppliers, service firms and R&D institutes; and to provide an institutional structure to embody such a system. Is a strategy required at all? The answer is clearly yes - there are widespread market failures in capability and institutional development because of the externalities, uncertainties, risks and complementarities involved. Many markets are segmented, some do not exist at all. Agents have little information or experience on which to base long term decisions. Clearly, the scope for efficient intervention is enormous.

This study cannot go into the details of how a broad base of industrial capabilities can be developed, but the broad lines of action are beyond dispute. The most important is probably the strengthening of the human resource base. There are many choices to be made here: which form of schooling, further education, disciplines and institutions to develop; how best to finance education; how to choose between formal and on-job training; what role to allot to employer-based and foreign training; and so on. The answers depend partly on the stage of development of the economy. Simple economies need more emphasis on lower levels of education, more advanced ones on specialized, higher levels, and so on. A great deal can be learned here from the strategies adopted by the NICs of East Asia.

As skills develop, the focus of the strategy has to be broadened to encompass the stimulation of technological activity by enterprises and supporting institutions. Such activity includes formal R&D, of course, but it also covers a variety of informal, even routine, activities related to production, adaptation and minor improvements to products and processes. There is a risk that firms underinvest in all these forms of technological activity or, in highly distorted regimes, invest in the wrong kinds (say, to substitute materials rather than lower costs). Part of the remedy lies in better market signals and greater competition. Part lies in providing better information and technological support (including the import of up-to-date capital goods). And part lies in directly encouraging, sometimes subsidizing, R&D activity and appropriate technology imports. The nature and pace of technological activity is strongly influenced by the development of industrial structure and firm size: countries that push into heavier industry need larger firms and more R&D than those that do not, even given equal export-orientation. However, greater export-orientation itself, for similar industrial structures, seems to call for greater technological effort.

The support of technology development also requires the build up of a complex superstructure of R&D institutes, standards institutes, quality control and testing facilities, information and extension sources and linkages with universities and foreign sources of knowledge.

The "support system" for industrial development needs not just the provision of skills and technology in a generic sense or in specific enterprises, but the coherent development of capabilities in whole sets of linked activities that complement each other. The "learning process" must thus be promoted in all firms that buy from and sell to each other (services

and goods), otherwise the development of the whole group can be retarded. This would hold back efficient specialization, forcing firms either to use costly or poor inputs, or to internalize an activity which should be conducted elsewhere. Governments must thus aim to promote strategic networks of activities rather than very specific ones, and the promotion must be in the form of a package. Just undertaking partial promotion, say by offering protection, may be less effective (or even counterproductive) than a series of coherent measures which support each other: e.g. temporary protection combined with skill and technology development, institutional support, and so on.

Stated in this form, capability development sounds an extremely difficult and forbidding task. There is no doubt that it is formidable - which is why even advanced industrial countries differ so much among themselves in this respect - and also costly and slow. But countries can move in a gradual, incremental way rather than attempt to do everything at once. Their planning and implementation capabilities are limited in exactly the same way as their industrial capabilities, and must be slowly improved and deployed economically. It is imperative, therefore, to start modestly and with lower degrees of selective intervention at the early stages, and to increase the policy burden only as the administrative learning process builds up. If the country is able to attract the simpler kinds of FDI to start with (and policy reforms and physical infrastructure are essential for this), this can itself help to build up various industrial capabilities. This can then be used to mount more difficult interventions in the technological field. If the strategy promotes growth successfully, larger resources will be available to invest in skill and technology creation: progress is possible, but it has to be incremental. Too ambitious a programme may be counterproductive.

A N N E X

Developing Country Policies Towards FDI - Selected Case Studies

Changes in government policies of developing countries towards FDI in the past five years have confirmed and strengthened an apparent trend, begun in the mid-1970s, towards liberalization of inward FDI regulation. Rather than seeking to exercise new controls over FDI, countries now seek primarily to encourage inward FDI by reducing obstacles, restrictions and requirements, and by offering guarantees and incentives.

While liberalization towards FDI has been the clear general trend among developing countries as a whole, this does not mean that the previous institutional mechanisms for monitoring and controlling FDI do not still operate and that the entry and operations of TNCs are not subject to some kind of assessment. Liberalization, moreover, remains country-specific and no across-the-board generalization for all developing countries is valid, especially as the various country and regional nuances can play such an important part in how FDI is received. Finally, the approach to FDI varies considerably depending on the specific economic sector, industry, or technology transfer concerned.

It is self-evident that there will be wide disparities among the various countries' approaches to FDI within this broad trend of increasing liberalization; in order to better assess these differences and the reasons for these, four countries have been selected from different regions and stages of development which, as far as possible, represent certain common approaches to FDI as displayed currently by developing countries.

1. SINGAPORE

The case of Singapore is not typical of developing countries as a whole, given its high per capita income and the large involvement of TNCs. It demonstrates however, the new policy challenges confronting those newly industrializing countries which, having developed so fast in the 1960s and 1970s through labour-intensive manufacturing, are now having to shift equally quickly into higher technology and skill-intensive activities in manufacturing and, increasingly, into services, to retain their competitive advantage.

Singapore's policy towards FDI has traditionally been one of total openness. It imposes no anti-monopoly laws, no approval or licensing process for foreign investments and no technology transfer controls or compulsory registration of contracts. Companies do not have to comply with any domestic content legislation or requirements. They are free to import capital, remit profits and repatriate capital.

This open door policy towards FDI should not be confused with laissez faire. In fact, the Singaporean government plays an active role in guiding, promoting and encouraging FDI into those sectors and industries most in keeping with its overall development objectives and has done so over almost three decades.

These policies are strongly epitomised by the Economic Development Board (EDB) which was established in 1961 to create the proper environment in which FDI could best contribute to the country's industrialization programme.

In these early years, the goal of the EDB was to use foreign investment to alleviate the prospect of massive unemployment from the impending British military withdrawal. It therefore encouraged FDI in labour-intensive and low technology industries, offering the attraction of its geographical location and low cost labour. Although the unemployment threat receded in the 1970s, the EDB continued to promote investment to fully convert the economy from a trading entrepôt to a base for the export of manufactured goods.

In the late 1970s and early 1980s, as unemployment continued to fall and with wages rising, competition from other developing countries with far lower wage rates increased. Protectionism too increased against some labour-intensive products in Singapore's markets abroad. The EDB thus instituted policies to accelerate the shift in the manufacturing sector away from labour-intensive industries with low value added per worker towards capital- and skill-intensive industries with higher value added per worker. The EDB, in co-operation with various other industrial departments, encouraged investment away from textiles, sawn timber and food processing into electronics, professional and scientific instruments, and into other higher technology industries.

Beginning in the mid-1980s, the country instigated a further shift in industrial planning, accelerating the pace towards high technology industries and targeting the service sector as another pillar of economic growth. The EDB thus expanded its activities beyond that of promoting industrial development to include the promotion of services.

The aim here was to alleviate Singapore's growing labour shortage problem by focusing on improving productivity in service industries, which typically could be done without the need to expand the workforce. In the same fashion, the EDB has tried to encourage manufacturers into very specialized, high technology niche markets, where skill rather than manpower is the main requirement.

Indeed, the labour shortage is the main factor behind the EDB's new strategical initiative to encourage Singaporean manufacturing firms to become multinationals themselves and, in this way, to get firms to relocate their most labour-intensive operations abroad and concentrate on more value-added activities in Singapore (Economic Development Board Singapore 1987/1988).

The main point is that with all these shifts in economic and industrial conditions, the EDB has involved itself fully in shaping and encouraging FDI to respond adequately and effectively to these developments.

FDI, in both quantitative and qualitative terms, plays a major role in the restructuring of the Singaporean economy and this, in part, is due to the way the government has utilized a full range of promotional and incentive schemes to encourage FDI. Of all developing country agencies, the EDB must rank as one of the most sophisticated FDI promotional agencies, comparable indeed to the very best of similar agencies in developed countries.

The EDB is a one-step investment centre, providing a comprehensive range of services and facilities to investors. Its first task, promoting investments, is initially undertaken by its international network of offices established in 20 major world business centres. These offices provide companies with information about the country, assistance in project feasibility studies, the nature of the incentives they might expect, assistance with visits to survey sites and introduction to potential partners for collaboration. In particular, the EDB tries to locate potential foreign investors among TNCs with little or no international experience and/or knowledge about Singapore and the region, as well as in the most appropriate industry to serve the country's needs. The long-term and difficult nature of such activities sometimes means that FDI eventually occurs only after 5-10 years of mutual contact between firm and agency (Economic Development Board Singapore 1987/1988).

The EDB administers incentives to attract FDI. The basic incentive is pioneer status, which provides for exemption from the 40% company income tax for a period of 5 to 10 years. A second incentive encourages exports by offering low taxes on export profits. Tax concessions are applied to those firms for special reasons, including the export of high value added products.

The special treatment that large TNCs received because they tended to be the firms which exported high value added products led to concern over the competitiveness of indigenous enterprises. Thus, the EDB promoted local Singaporean business, especially in the small and medium-sized sector.

A major plank to EDB's strategy is manpower development and training. Its aim is to provide the whole economy with the necessary skills, systems and knowledge to operate a modern economy. In combination with industry and other government departments, it organizes schemes in industry to raise the level of awareness and use of information technology. It investigates precise manpower needs of actual and potential investors and works with the relevant educational bodies to try and ensure that such needs will be matched by the appropriate labour supply.

Singapore's future FDI promotion schemes

The Singaporean government bases its actual policies towards FDI on its future strategic goals for the economy. Overall, its aim is to develop the economy as a service centre for finance, business and trade: a "technopolis" or "total business centre" of South East Asia.

In manufacturing, it is seeking to base those high technology/software/service functions more and more inside the country, while relocating lower value added activities in nearby countries abroad.

The EDB is actively involved in pursuing this more long-term strategy. It is helping Singaporean and foreign companies diversify their more labour-intensive activities into neighbouring countries and to link these operations with those in the home base. The Indonesian island of Batam is being promoted as an ideal site for such moves by the EDB. The EDB is also helping Singaporean companies make direct investments overseas, including strategic acquisitions, in order to develop true home-grown TNCs. Under the International Direct Investments Programme, there are several tax and fiscal

incentives for companies whose direct investments overseas are considered of importance to Singapore.

The EDB urges firms to upgrade their activities from production into developing a more rounded capability, stretching from production engineering and product design to marketing technical support and ultimately regional management. The EDB also encourages, through special schemes and incentives, foreign corporations to make Singapore their regional headquarters. Over 20 foreign firms alone did this in 1988, thereby qualifying for special concessions.

The aim to establish Singapore as the operational headquarters of foreign TNCs and of Singaporean TNCs is part of an overall commitment to develop tradable services which are inherently technology- and knowledge-intensive, including medical and computer education and training services (Economic Development Board Singapore 1987/88).

2. MEXICO

The Mexican government's policy towards FDI is now rather typical of the new, more liberal approach to FDI among developing countries. In the past, Mexican policy restricted FDI in certain industries and sectors, particularly the petrochemicals industry, limited profit repatriation and royalty payments and prevented acquisitions of shares in locally traded companies. The aim of these restrictions was to protect Mexico's own natural resources, so that production remained in the hands of nationals, and to protect local firms in nascent industries, particularly high technology ones like computers and pharmaceuticals which were especially vulnerable to competition from more developed foreign firms.

The main exception to this restrictive framework was the maquiladoras - special sites situated close to the US border, offering firms special trading benefits into the US market, as well as a large pool of rather low cost labour. These proved highly successful in attracting large stocks of FDI.

The shift in government policy towards FDI has come about, firstly, as a result of the declining international competitiveness of the country's indigenous firms, including some foreign firms which have operated in certain protected industries. The government hopes that by liberalizing previously closed industries, the competitive effects will raise the efficiency and earnings of Mexican corporations.

Secondly, the government needs more foreign investment to develop certain industries in which FDI had been restricted. With the country's debt problem, local firms and state enterprises have not been able to make the necessary investments. The lack of investment has become a major problem in the Mexican economy in all industrial sectors. For example, the country must import certain petrochemical products because its own state firm, PEMEX, has no resources to develop the products itself, despite its access to the necessary raw materials. The failure to develop its own resources properly means that the economy loses the opportunity to earn much needed foreign exchange. In the service sector, too, FDI is needed to build up the country's decaying infrastructure and new roads and highways which can boost the flow of exports into the US market.

Thus, Mexico's policy changes are a function both of its drastic economic problems, as well as of shortcomings in its previous investment regime, which led to the development of inefficiencies in many industries and sectors.

There are two thrusts to Mexico's reform of FDI legislation. First, previously closed industries have been liberalized so that FDI can take place. In this connection, the government has embarked on a major scheme of privatization in which foreign corporations will have the right to tender for shares.

In August 1989, the government removed 15 products from the list of 34 basic petrochemicals reserved for the oil and gas producing monopoly. This opens up new possibilities for foreign investment and participation of multinationals as minority partners in joint ventures seems assured. The list of "secondary" petrochemicals has been reduced to 66. In this category, foreign participation of up to 40 per cent is allowed and as of May 1989, some categories may be eligible for majority control by foreign companies for a 20-year period. For all other reclassified products, foreign investments of up to \$100 mn are now automatically approved unless queried within a period of 45 days.

In addition, the government recently announced that it is opening its market in two of the three still restricted sectors, computers and pharmaceuticals, where imports have, up until now, been subject to licenses.

Licensing restrictions on the import of computers will be dropped from mid-March and a system of exemptions from duties on components for a 3-year period should further stimulate the domestic computer industry.

In the pharmaceuticals industry, the import permit system would also be abolished for 46 out of 80 inputs and raw materials. Restrictions would be removed on 12 more in the course of 1990, while imports of the rest would be liberalized in the 1991-1993 period (Financial Times, 9 February 1990).

Another major area of reform has been in simplifying the rules governing the transfer of technology announced in early 1990. Under the old law governing technology transfer, the government decided whether the technology would be valuable to Mexico, if the terms of the deal were acceptable and how much in royalties would be paid. Now the agreements take place between businesses with no government interference. Full protection of intellectual property is now seen as a third area of reform necessary to attract new FDI on a large scale.

Thus, in January 1990, the government announced that legislation would be submitted to Congress to commit Mexico to observe patent and property rights in line with international standards, as part of the 1990-94 National Plan for Industrial Modernization and External Commerce.

3. INDIA

Unlike Mexico, India has done little in recent years to revise its highly selective and rather restrictive approach to FDI. India receives very little FDI and, indeed, for many years, has been a net exporter of FDI as many of its own companies have become quite active investors in foreign markets. FDI,

when allowed, mainly comes in the form of joint ventures or non-equity collaborations (Stoever 1989). India's policy towards FDI assumes that full political independence can be achieved only when there is also full economic independence and when the economy is free from foreign control and domination. This approach is based on certain competitive advantages: a large supply of relatively cheap but, in some cases, quite skilled labour (India has the third largest pool of engineer graduates in the world) and a huge internal market where demand from an emerging middle class, although low by world standards, is nonetheless growing. This has encouraged India to prevent FDI entering those industries on the mature and low technology end of the spectrum, where Indian firms have the capabilities to compete, while permitting, to a certain extent, FDI in the high technology industries, where Indian firms are seeking to increase their competitiveness. To some extent, FDI is also welcomed if production is primarily for export.

Thus, in general, private overseas capital is not given much emphasis as a source of external finance. In particular, foreign investment is not regarded as a major factor in overall economic growth, though it is now recognized as important in certain industries - electronics and vehicles - and for specific purposes: acquiring technology and increasing exports.

Government policy towards FDI is laid down in the 1973 Foreign Exchange Regulation Act (FERA) which was designed as a mandatory measure to achieve the "Indianisation" of wholly foreign-owned companies. This Act's initial impact was to cause foreign firms to disinvest. Since the imposition of FERA in 1984, out of a total of 800 affiliates, 61 left, 112 were asked to dilute foreign shares to 51 per cent - 74 per cent, 231 to dilute to 40 per cent or less, 72 diluted on their own, and the rest were already under the 40 per cent limit (Cable/Persaud 1987).

Having achieved this result, the government has determined that its primary objective for FDI is to obtain new or upgraded technology; it states that it "looks upon foreign investment as a vehicle for the transfer of technology required by the country". In pursuance of this objective, the Indian authorities screen all proposals for foreign collaboration to determine if the technology is modern, necessary to the economy, and unavailable locally.

The Government's preference is for technology transfer in the form of "technical collaborations" (sale or licensing of technology and know-how) rather than "equity collaboration" (joint ventures). In the case of technical collaborations, it prefers that payments be in the form of a lump sum rather than royalties or fees continuing over time. Where royalties or fees are allowed, the government tries to limit them to 5 per cent of the "net ex-factory selling price" and to a period of five years.

In order to promote more rapid and widespread diffusion of technology, the government has adopted the philosophy that once one Indian company has acquired a technology, it should be available to all companies. Hence India's patent laws afford less protection than do the laws of most industrialized countries.

Indian policy towards FDI has often been criticized. Limitations on equity ownership prevent many TNCs from putting in their state-of-the-art equipment, production processes or know-how because they fear they will lose control of their proprietary knowledge. Their fears are exacerbated by the

lack of adequate patent protection and by the government's attempts to diffuse technology to other firms once one local company has obtained it. Furthermore, the attempts to limit fees and royalties may have, in some cases, caused some foreign firms to transfer older technology.

At the same time, studies have shown that TNCs playing a leading role in the Indian economy in the high technology industries, such as pharmaceuticals and computer software and hardware, have enabled collaborating Indian firms to upgrade their technology and exploit it in overseas markets.

As regards the mature, low-technology areas which the Indian policy has protected from foreign competition, it has, it is claimed, produced firms which are quite insulated from foreign competition and, thus, uncompetitive and unable to sell products in highly competitive export markets.

Concerning the future course of government policy, there is little evidence that many of the restrictions mentioned above will be lifted or relaxed, especially the 40 per cent ceiling on the equity participation in foreign investments which has probably, more than anything else, been the principal discouragement to FDI.

4. GHANA

Since its independence, Ghana's policy towards FDI has not been typical of other states in Africa. Africa is a region where a liberal attitude and a desire to encourage inward FDI through guarantees and incentives have long characterized the investment laws and regulations in effect in most countries (UNCTC 1988). Many African states have enacted "investment codes" designed to promote both domestic and foreign investment. Such codes usually provide for the granting of certain general guarantees (for example, against expropriation or nationalization without fair compensation and for non-discriminatory treatment and repatriation of capital and profits within certain specified limits) on all investments and for special advantages (particularly tax and customs exemptions) when the investment meets certain additional criteria.

In contrast, Ghana is more like some Latin American countries which, having had a restrictive regime towards FDI are now in the process of liberalization. For example, the Ghana Investment Policy Decree, 1975, imposed strict limitations on the equity holdings of foreign investors in specific sectors of the economy. Thus, in the mineral and timber industries, foreign equity participation was limited to a maximum of 45 per cent. The same equity limitation applied to a range of manufacturing enterprises, including such industries as sugar, salt, soap, detergents, textiles, cement and beer. The decree further specified lists of projects which were reserved for full Ghanaian ownership and others which permitted joint foreign and Ghanaian ownership.

The Ghana Investment Code of 1981 attempted to modify some of those provisions, both with respect to limitations on equity participation and with respect to the projects or enterprises in which foreign participation was permitted. Nonetheless, the Code represented little fundamental change from the previous legislative stance towards FDI.

The attitude of the Ghanaian government towards FDI started to change in the early 1980s when the economic climate in the country began to deteriorate. Over 50 per cent of the country's foreign exchange earnings come from agricultural products, principally cocoa. In the 1980s, the price of cocoa fell sharply. In 1983, the government adopted an IMF- and World Bank-sponsored structural adjustment programme. The related loans implied that a rising share of export earnings went into servicing foreign debt. In 1988, the Ghanaian government had acquired a total debt of US \$2.4 billion, accounted for principally by international institutions (the World Bank and IMF's share was over 60 per cent in Ghana's total debt). In 1988, Ghana used 75 per cent of its foreign earnings to meet debt repayments.

As a consequence of the government's tight financial situation, it could not fund moves to diversify the economy away from reliance on a single export earner, like cocoa, to other sources, notably minerals. In the gold industry, many seams remained unexploited because of insufficient state funds.

The New Ghanaian Programme towards FDI

The new approach towards FDI is essentially found in two legal instruments, the Investment Code of 1985 and a Mineral Code (1986), to update the law relating to investment in mining activities.

The Investment Code of 1985 represents a significant change of attitude towards foreign investment (UNCTC 1989a). It removes all equity limitations on foreign investment. Instead, the Act defines a list of priority areas for foreign investment in those areas which shall qualify for a set of defined incentives and guarantees. These priority areas are agriculture, manufacturing industries, construction and building industries, and tourism. In manufacturing, those industries which undertake manufacturing for export, that predominantly use local raw materials or that produce agricultural equipment receive a number of fiscal incentives as well as exemption from the payment of customs import duties in respect to plant, machinery, etc.

Second, the Investment Code of 1985 has reduced the list of enterprises wholly reserved for Ghanaians. Third, the Code provides for considerable investment guarantees, including the right not to be expropriated, and contains no restriction on the remittance of capital, and transfer of profits.

In some respects, however, while the Investment Code liberalizes the legislation concerning FDI, it by no means dismantles the entire legal framework for exercising control over TNCs or for evaluating the benefits and burdens of particular foreign investment proposals. The new Ghanaian Investment Centre established under the terms of the Code is empowered to appraise the projects to ensure they meet certain conditions (for example, utilizing local materials, supplies and services, creating employment opportunities or contributing to the upgrading of indigenous technology). Furthermore, although red tape surrounding the approval of new projects has been relaxed and speeded up, it has by no means been removed altogether. For example, the Centre must approve an FDI project in liaison with relevant Ministries and Departments. Thus, Ghana is far from having the quick one-step approval centres established in other developing countries to facilitate the establishment of FDI.

As it concerns the mining industry, new Ghanaian legislation has been passed to encourage FDI in the gold industry, since the development of the country's gold resources has become a matter of considerable urgency. New incentive packages are offered to foreign firms. Between 1986-89, 70 prospecting licences have been issued (a third to predominantly foreign-owned companies) and four mining leases have been granted, one to a Canadian mining corporation.

Finally, in response to its pressing financial difficulties, the government has begun a process of privatizing its large state sector and within certain industries, it is encouraging foreign investors to purchase shares. For example, Ghana's hotels have, for the most part, been traditionally state-run concerns. Poor management and lack of funds, according to the government, has led many of them to fall into disrepair. Consequently, the government has launched a programme to encourage foreign investment in this industry which partly because of the latent opportunities existing in the country's underdeveloped tourist industry, has been meeting with some success.

In conclusion, the liberalization of Ghana's FDI legislation has consisted of two main types of efforts: on the one hand, the government has lifted some of the onerous conditions on the entry and operations of TNCs, such as exclusion from certain industries, requirements of local participation, etc.; on the other, it has simplified the mechanisms whereby an FDI project is approved. At the same time, not all the restrictions of the previous investor regime have been lifted. In the former case, conditions remain, like the minimum capital requirement for FDI. In the latter case, while the approving mechanism has been improved and centralized into one body, the new Ghanaian Investment Centre, its power is circumscribed, to some extent, by the requirement to consult other ministries and departments before taking a decision. Nevertheless, the government now feels that FDI can play an important role in the country's economic recovery and while FDI is encouraged across the board, the government is tending to target its natural resources sector (gold) and services sector (tourism) as sites for new inflows.

STATISTICAL ANNEX

Table A-1. FDI flows to developing countries, 1981-1988

(US mn\$)	1981	1982	1983	1984	1985	1986	1987	1988
USA ^{a/}	n.a.	3705	1084	2581	-1040	2807	3286	3435
UK	2045.1	83.8	1442.1	2185.6	2322.9	1841.9	3483.7	n.a.
FRG	551.3	451.3	520.8	632.0	361.1	-3	888.0	299.0
Sweden ^{b/}	152.2	189.7	166.2	85.8	350.7	195.3	209.2	279.4
Japan ^{a/}	5130	3458	4179	4324	3628	5613	7852	9054
Denmark	34.8	8.5	15.4	46.5	22.8	26.5	105.5	29.6
Finland	11.9	20.1	16.5	28.5	27.9	46.7	40.7	73.7
Netherlands ^{c/}	366.8	245.1	150.2	204.5	777.4	366.1	245.4	646.4
TOTAL	8292.1	8161.5	7574.2	10087.9	6450.8	10893.5	16110.5	13816.7

Source: US Survey of Current Business; MITI/JETRO; Central Bank statistics of the individual countries, various years.

a/ Excludes Caribbean.

b/ Non-OECD.

c/ Excludes offshore banking.

Table A-2. Indicators of the importance of foreign affiliates in manufacturing production and exports of developing countries (selected years)

Country	Employment	Production	Exports
Argentina	18.9(1981)	29.4(1983)	26.6(1983)
Brazil	23.0(1977)	32.0(1977)	32.3(1980)
Chile	-	28.0(1979)	21.7(1979)
Colombia	-	29.0(1983)	16.9(1980)
Korea, Republic of	9.5(1978)	19.3(1978)	24.6(1978)
Mexico	21.0(1970)	27.0(1972)	42.4(1977)
Malaysia	19.7(1975)	44.0(1978)	34.6(1980)
Philippines	8.6(1976)	-	51.5(1983)
Singapore	54.6(1982)	62.9(1982)	89.7(1983)

Source: UNCTC, Transnational Corporations in World Development: Trends and Prospects, New York, 1988.

Table A-3. Inward stock of FDI in services, selected developing countries and territories (selected years)

Country/territory	Year	Value		Share of services in total foreign direct investment (Percentage)
		Total foreign direct investment (Billions of dollars)	Foreign direct investment in services (Billions of dollars)	
<u>Latin America</u>				
Argentina ^{a/}	1981	2.4	0.6	25
	1983	2.8	0.8	27
	1985	3.1	0.9	26
Bolivia ^{a/}	1981	0.46	0.05	11
	1986	0.53	0.06	11
Brazil	1971	2.9	0.5	16
	1976	9.0	1.9	21
	1985	25.7	5.6	22
Chile	1973	0.4	0.1	27
	1983	2.0	0.7	33
Colombia ^{c/}	1975	0.6	0.2	29
	1980	1.1	0.2	23
	1985	2.2	0.4	16
	1987	3.0	0.4	12
Ecuador ^{c/}	1981	1.0	0.5	48
	1986	1.3	0.6	44
Mexico	1980	8.5	1.5	18
	1985	14.6	2.9	20
	1987	20.9	4.8	23
Panama	1975	0.3	0.1	32
	1980	0.3	0.1	37
	1983	0.4	0.2	48
Paraguay	1984	0.5	0.1	45
Peru	1978	0.8	0.2	25
	1980	0.9	0.2	27
	1985	1.4	0.4	29
	1986	1.4	0.4	30
Venezuela	1981	1.8	0.61	34
	1986	2.4	0.65	27

Table A-3. (cont'd)

Country/territory	Year	Value		Share of services in total foreign direct investment (Percentage)
		Total foreign direct investment (Billions of dollars)	Foreign direct investment in services	
<u>Asia</u>				
Bangladesh ^{d/}	1980	0.013	0.009	64
	1982	0.018	0.012	69
Hong Kong	1981	3.8	2.4	64
India	1980	1.2	0.05	4
Indonesia ^{e/}	1977	2.9	0.3	11
	1980	4.0	0.4	11
	1986	6.9	0.7	10
Korea, Republic of ^{b/}	1981	1.9	0.5	24
	1987	4.0	1.4	34
Malaysia ^{f/}	1972	0.7	0.2	37
	1984	2.9	1.2	40
Nepal	1986	0.1	0.007	7
Pakistan	1980	0.2	0.02	15
	1985	0.3	0.04	13
Philippines	1976	0.5	0.2	34
	1983	2.0	0.5	26
	1986	2.7	0.6	23
Singapore	1970	0.6	0.3	55
	1976	2.8	1.3	47
	1981	8.2	4.2	51
Sri Lanka ^{d/}	1985	0.7	0.4	57
Taiwan Province ^{b/}	1985	5.2	1.2	23
	1986	5.9	1.4	23
Thailand ^{h/}	1975	0.5	0.3	56
	1980	0.9	0.5	54
Western Samoa	1980	2.9	0.003	0.1

Table A-3. (cont'd)

Country/territory	Year	Value		Share of services in total foreign direct investment (Percentage)
		Total foreign direct investment (Billions of dollars)	Foreign direct investment in services (Billions of dollars)	
Africa				
Cameroon	1981	0.7	0.001	0.2
Central African Republic	1981	0.1	0.03	25
Ivory Coast	1980	0.6	0.1	23
Egypt ^{d/}	1979	7.0	4.0	57
	1984	14.9	6.7	50
Gabon	1981	1.4	0.02	1.6
Kenya	1984	0.3	0.1	29
Liberia	1987	0.007	0.003	45
Malawi	1981	0.4	0.05	12
Morocco	1982	0.7	0.4	55
	1975	3.0	0.6	20
	1980	4.9	1.9	40
Nigeria	1982	4.3	1.6	37
	1982	1.9	0.7	34

Source: United Nations Centre on Transnational Corporations, based on official and other sources.

Note: The shares of services were calculated before the rounding of the stock figures. They may, therefore, differ from the shares which would result from the rounded figures.

a/ Cumulated approved foreign direct investment since 1 March 1977.

b/ Based on approvals.

c/ Excluding oil.

d/ Cumulative flows since 1977.

e/ Excluding oil, insurance and banking.

f/ Equity shares held by foreign residents in limited liability companies incorporated in Malaysia as of 31 December 1972 and 31 December 1984 (paid-up value).

g/ On approval basis. Cumulative flows since 1977.

h/ Cumulated flows since 1971.

i/ Projects established under the Investment and Free Zones Law, cumulative 1974-1984.

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