

# RIS DISCUSSION PAPERS

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Global Patterns of Multinational Enterprises'  
Activity: Implications of Recent  
Quantitative Studies for India**

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**Host Country Policies, WTO Regime and the Global Patterns of  
FDI Inflows: Recent Quantitative Studies and India's Strategic  
Response**

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# **Host Country Policies, WTO Regime and the Global Patterns of FDI Inflows: Implications of Recent Quantitative Studies for India**

**Nagesh Kumar**

## **1. Introduction**

One of the most striking aspect of the current trend of globalization is the exponential growth of foreign direct investment (FDI) flows or the multinational enterprises (MNEs) activity. Expanding magnitudes of FDI inflows over the 1990s have prompted governments –in both developed as well as developing countries alike- to attract MNEs with various incentive packages to access their resources viz. capital, technology, skills, market access, among others, to expedite the process of their development. Developing countries, in particular, constrained as they are in expediting their development by the paucity of resources of all types --financial capital, entrepreneurship, technological know-how, efficient managerial techniques, access to markets abroad -- have looked to FDI as a panacea for all their scarcities especially in the context of drying up of official transfers of resources. In the race for seeking more and more FDI inflows, however, the countries have overlooked the fact that all the flows of FDI do not benefit their host countries similarly. There is indeed a great variation in the extent of capital, entrepreneurship, technology, market access brought by them. Some may actually bring pretty little, if at all. While in general, it is admitted that the host governments' policies may play an important role in extracting the benefits of FDI for their development (see for instance, UNCTAD, 1999), a more exact analysis of relative role of different policy measures in shaping the patterns of magnitudes and quality of FDI inflows is not available. Such an analysis has become even more important now in the context of another development of the past decade viz. the Uruguay Round of Multilateral Trade Negotiations which has led to the setting up of the World Trade Organization (WTO). The new international trading regime that has come into being, for the first time covers issues which have an important bearing on the ability of national governments in regulating the patterns of FDI inflows.

In this background, this paper summarizes some findings of our recent comprehensive attempt to quantitatively analyze the role of structural, geopolitical and policy factors in shaping the patterns of MNE activity, using an exclusive four dimensional data-set. The focus here would be to summarize the findings pertaining to the role of host government policy factors and to draw implications of the emerging WTO regime in their light. The structure of the paper is as follows. Section 2 briefly outlines the analytical frameworks that have been developed to analyze the patterns of FDI especially pointing out hypotheses pertaining to the role of host government policies. Section 3 presents a summary of findings pertaining to the host government policy factors. Section 4 discusses the implications of the emerging WTO regime for countries like India in the light of our quantitative findings. Finally, Section 5 concludes it with some remarks on a possible response of India to the emerging challenges.

## **2. Role of Host Country Policies on Different Aspects of MNE Activity: A Note on Analytical Frameworks and Hypotheses**

The inter-country variation in affiliate sales as a measure of intensity of operation of Japanese and US MNEs in a particular country, in a particular sector and at a particular point of time was sought to be explained in the framework of an Extended Model of Location of Foreign Production formulated by us drawing upon the complementary approaches of gravity model of international trade and the theory of international operations of firms. This model explains the affiliate sales in terms of some demand (or gravity factors) in the host country captured by population, per capita national income, the geographical distance between the home and the host country, the extent of cultural affinity (proxied by linguistic homogeneity) between the home and host country, and the extent of urbanization. The model also includes a few variables in tune with the theory of foreign operation of firms that make local production preferable to exporting. These include wage rates, an index of quality of infrastructure and a vector of variables capturing different elements of host country's policy framework. The policy factors included the relative openness of country's trade regime, performance requirements imposed by host countries on foreign affiliates, the extent of investment incentives provided by host governments, the extent of tax incentives extended by host governments and the tax rates [see Kumar, 2000a, forthcoming, for more details of the analytical framework and hypotheses].

This model, therefore, combines the demand factors in the host countries that act to pull MNEs towards them as well as factors that make affiliate sales rather than exporting as the

mode of market servicing. Some of these factors are structural in the nature in the sense that they are given in a short period such as population, income levels, urbanization, infrastructure and wages and geographical and cultural distance as well as factors that are subject to host government policy and can be changed in short run such as trade, investment and technology regimes.

The above framework was then adapted to explain affiliate activity in modern and traditional industries. Taking cue from the new location theory, it was posited that the MNE activity in modern or knowledge intensive activities may be driven by created assets localized in particular countries. Similarly, the agglomeration economies may affect the MNE activity in different industries differently. After explaining the sales of MNE affiliates, the research explained the inter-country variation in the extent of depth of foreign operations. Some of the explanatory variables especially the policy variables could affect the affiliate activity and its depth differently, as discussed later.

The next step is to explain why foreign operations in some countries are more export-oriented than in others. Although a large volume of literature has addressed itself to the phenomenon export-platform production by MNEs in general and in the context of East Asian countries, in particular [see the pioneering work of Nayar, 1978; Frobel, et al. 1980; Kumar, 1994a, among others], it focuses on the operations that feed back the home countries of MNEs. However, the exports to third countries by MNE affiliates have grown in the recent years faster than those directed to home countries. We contended that the two types of export-oriented production are of different nature and developed a conceptual framework that took into account the destination of exports (see Kumar, 1998a). A stylized view of the home market oriented production abroad is that it is essentially cost saving in nature that is rationalized abroad to benefit from international differences in factor prices and raw material costs for home market consumption by MNEs. The home market oriented production abroad by US MNEs was encouraged by the Offshore Assembly Provisions in the US Tariff Code which allow duty free reimport of components exported by US enterprises for offshore assembly under US tariff items 9802.00.60 and 9802.00.80 since the 1960s. Rapid appreciation of Japanese yen since the Plaza Accord of 1985 and rising wages in Japan prompted Japanese corporations to rationalize their home market oriented production globally. The extent of relocation of production has been considerable enough to invite widespread fears of 'hollowing out' of Japanese industry. The home market oriented FDI

generally involves production of intermediate goods which are often custom made [Kumar, 1998a].

The third country oriented production abroad, on the other hand, results from the strategy of MNEs to assign the responsibility for serving specific regional or even global markets in particular product lines to certain affiliates. This strategy is some times called product mandating and results from the efficiency seeking restructuring or specialization within the MNE. For instance, a Malaysian affiliate of Minolta corporation producing a particular range of cameras for Minolta's markets world-wide, Brazilian affiliate of Singer producing a particular model of sewing machines for the global markets, Ford of the UK producing the Escort model of cars for the European Union (EU) members and neighbouring countries, and so on. This strategy helps the corporation to internalise the economies of specialization and scale by focusing the attention on the production of a specific product line. Global product mandating as a strategy has been made possible by the recent trend of liberalization of economies world-wide. The recent trend of regional economic integration has contributed greatly to the process of internal restructuring of enterprises by eliminating the tariff and non-tariff barriers across the participating countries and thus removing the need to maintain horizontal national operations for MNEs. The Single Market Plan of the European Union, for instance, has prompted not only the European MNEs but also the American and Japanese MNEs operating in the Common Market to restructure their operations on a pan-European basis [see Kumar, 1994b, for illustrations]. Third country-oriented ventures, therefore, produce final goods for serving the mandated markets that generally cover host country local market.

Based on these stylized views of the two types of export-platform production, potential factors that would be relevant for the two situations were identified and predictions were formulated.

Finally, we explain why affiliates in some countries conduct R&D and not in others. Here, an analytical framework is developed that takes into account the recent writings on the internationalization of R&D of MNEs and the factors that act centripetal and centrifugal forces. The size of the host market, availability of technological infrastructure and resources, among other factors may affect the decision-making pertaining to location of R&D in a particular country (see Kumar, 2000b, forthcoming for more details).

The above frameworks are put to test with the help of an exclusive Glob-Ted database which covers four dimensions viz. two prominent source countries of FDI i.e. USA and Japan, 74 host countries, seven broad branches of manufacturing, and three points of time. These models also enable us to verify the role of specific aspects of host country policies on patterns of MNE activity in the host countries, holding other factors constant. In what follows, we summarize the propositions with respect to the role of policies in shaping the patterns of MNE activity that were tested.

### **THE TRADE POLICY REGIME**

The relative openness of a host country's trade regime may have two counteracting influences on the extent of foreign presence. Firstly, a country with a more open liberal trading environment may be a better place to do business for foreign enterprises and FDI inflow may increase. On the other hand, the bulk of FDI inflow in most countries is of the tariff (or non-tariff trade barrier) jumping type. Protection accorded to the local industry by host governments is known to have prompted MNEs to set up local production as confirmed by a number of studies that reported the favourable effect of protection in explaining FDI patterns (see Caves, 1996 for a review of evidence). In more recent times, industrialized countries in the EU, for instance, have used protectionist measures such as voluntary export restraints (VERs), quotas, screw driver regulations, rules of origin, and various anti-dumping measures to encourage foreign-based MNEs, especially Japanese based, to increase domestic content in their sales (see e.g. Belderbos, 1994; Moran, 1998). Hence, the depth or extent of localization may be inversely related with the openness of the trade regime. In part this is because a restrictive trading regime may raise the costs of imported inputs and may encourage to localize a greater extent of production in the host country. Therefore, the openness of the trade policy regime (*OPENNESS*) was expected to affect the affiliate sales in general favourably and inversely related with the depth of their manufacturing activity.

However, export-orientation of production may be positively related with the *OPENNESS*. This is more so for export-oriented production that is geared to third country markets. This is because the latter are organised on the basis of overall efficiency unlike the efficiency based on the factor costs as in the case of the home market oriented ventures. Hence, inputs and components may be sourced from different places depending upon the cost. Furthermore, many developing country governments have established export processing zones in an explicit effort to attract MNEs to set up export-platform ventures by offering them a more

liberal trading environment in an otherwise closed economy. Besides they also provide a more efficient infrastructure, port facilities, and privileges such as tax holidays and sometimes even more harmonious industrial relations by curbing or restricting strikes etc. These zones have been used by MNEs for labour intensive processing mainly for home markets. Hence, size of export processing zones (*EPZONES*) was expected to particularly favour home market export orientation of affiliates.

Finally, the location of R&D may also be influenced by policy environment within the host countries with respect to overall international orientation, although its role is less straight forward. An economy protecting local industry may create a greater demand for technological inputs by increasing the need for indigenization by making imports relatively more expensive. On the other hand, a restrictive trade regime may discourage MNEs from undertaking R&D activity in the economy because of perceived difficulties in importing R&D inputs such as equipment, personnel, components etc. and for other handicaps of a restrictive atmosphere. Hence, *OPENNESS*, was included among potential explanatory variables without a prediction of the direction of impact.

### **INVESTMENT POLICY REGIME**

Several aspects of government policy regime may contribute to the perceived investment climate in the country including some elements of policy that apply to foreign enterprises such as performance requirements and fiscal incentives meant for industrial investments.

Performance Requirements: A large number of host governments impose a variety of performance requirements on MNEs to pattern their operations in consonance with the country's development objectives (see Guisinger et al. 1985; UNCTC, 1991). These requirements are often concerned with the transfer of production and technology to the host country. These requirements tend to make the conditions of investment restrictive and hence may adversely affect foreign sales. If they are effective, however, they may improve the quality of foreign sales favourably in the sense of enhancing the depth of whatever output foreign affiliates produce in their host country. The incidence of different types of performance requirements as imposed in the country viz. transfer of technology, export commitments, and local content regulations, is measured by *PRFREQ<sub>it</sub>*.



The extent of overall performance requirements imposed by host countries are predicted to adversely affect the attractiveness of a country as a potential host for MNEs. However, those MNEs that still locate in countries imposing some performance requirements may have their operations affected by them. Some of the performance requirements are actually meant to promote a greater localization of production of affiliates. In particular, a large number of host governments have imposed local content regulations on foreign affiliates at the time of entry to deepen their commitment to the host country. The host governments have been concerned with often enclave nature of foreign affiliates' operations in particular, the weak nature of backward linkages. Battat, Frank and Shen (1996) have, for instance, documented that although Indonesia, Mexico, Philippines and Thailand have been successful in attracting FDI inflows and promote exports of electronics through them, backward linkages have remained weak. In Indonesia, foreign owned producers of consumer electronics buy only 25 per cent of their intermediate inputs from local suppliers, in Philippines foreign car assemblers purchased less than 15 per cent local parts and maquiladora industries in Mexico purchased less than 2 per cent of inputs from Mexican companies. Local content regulations have, therefore, been widely used by the host governments to increase the extent of backward linkages of MNE affiliates. Hence, the extent of local content requirements (*LOCONTREQ<sub>it</sub>*) was expected to favourably affect the depth of foreign affiliates' production.

Finally, sometimes the host country governments, especially of countries with relatively large domestic markets, have allowed to MNEs access to their domestic market subject to their accepting certain export commitments. These regulations could be specially relevant in situations where domestic market sales are at the cost of exports as in the case of third country exports. Moran (1998) provides evidence from a number of case studies in Latin America and East Asia on the role of export commitments imposed by host governments in prompting MNEs to set up what he calls world scale plants' and integrate them in their regional or global supply networks. Some other evidence from India have also supported the role of export obligations in improving the export performance of foreign affiliates (see Kumar and Siddharthan, 1997, for review). If the policy of imposing performance requirements such as export commitments is effective, a positive relationship is expected between intensity of export commitments imposed (*EXCOMT*) and third country export intensity.

Investment and Tax Incentives: A larger number of governments especially of developed countries, compete among themselves by offering a variety of fiscal incentives to attract FDI

(see for instance, UNCTAD, 1995). Moran (1998: 97) has assembled evidence on competition between OECD countries in offering investment incentives to FDI. For instance, Mercedes was paid \$ 200,000 per job created in 1996 in the US. In another case, a sum of \$ 300 million in incentives was reportedly paid to attract a single automobile plant in 1993 also in the US. The incentives offered by the host governments potentially increase the attractiveness of a country for FDI inflows by subsidizing the cost of capital. Earlier studies have found incentives to be affecting the pattern of location of FDI (see for instance, Loree and Guisinger, 1995). Hence, investment incentives ( $INCENT_{it}$ ) and tax incentives ( $TAXINCENT_{it}$ ) were expected to favourably affect foreign affiliate sales. Investment and tax incentives offered by host governments are meant to attract MNEs to locate production in their countries. Very often these incentives are linked to employment or value addition created. Hence, they should also have a favourable effect on the extent of localization of production.

#### **PATENT REGIME**

Recently, there has been a lot of controversy on the role of intellectual property protection in determining inward FDI flows. Stronger protection may reduce the transaction cost of transfer of knowledge by MNEs to foreign countries. Hence, it may encourage arm's length licensing of the knowledge and reduce the need for undertaking FDI (see for instance Brewer, 1993). On the other hand, it has been argued that poor IPR regime tends to adversely affect the investment climate and hence the probability of MNE investments (Mansfield, 1994). Relatively little empirical verification of these contentions that has been made has generally shown an insignificant influence of the extent of intellectual property protection on inward FDI (Ferrantino, 1993; Kondo, 1994; Correa, 1997). Lee and Mansfield (1996), on the other hand, in a sample of 14 countries (observations pooled over three years) find the perceived weakness of intellectual property protection adversely affecting the volume as well as the composition of US FDI inflows to the countries. However, given the small size of sample, a rather subjective measurement of intellectual property regime (based on firm's perception), and low t-values of the coefficients, the findings could be considered only as indicative unless replicated in larger samples. Hence, the possible effect of an index of strength of patent protection in the country ( $PATENTRIGHT$ ) on the foreign affiliate operations and their depth was examined without the benefit of *a priori* prediction.

The issue of intellectual property protection links more directly with R&D activity. MNEs may be apprehensive of locating their key R&D centres in countries with weak patent regimes.

Therefore, the relative strength of patent protection available in a country may be a factor in determining the overseas R&D activity by MNEs. On the other hand, in the case of overseas R&D directed to local adaptations and providing other support to the local production of the MNE, and not directed to new product development, the patent regime may not be of much consequence to it. Kumar (1996a) found a mixed evidence of the role of intellectual property protection on R&D activity of US MNEs in that it had a significant positive effect for the industrialized country sub-sample but an insignificant effect for the developing country sub-sample. It was rationalized in terms of possible differences in the nature of R&D done in the two groups of countries. Subsequent case studies have shown that relatively soft patent regime that has prevailed in India since the 1973, has not prevented a large number of MNEs from locating R&D bases in the country (Kumar, 1999).

### **3. Quantitative Analysis and Findings**

*A Note on Data Sets and Methods:* The empirical verification of the above propositions was performed with the help of an exclusive database, as indicated earlier, that covered four dimensions viz. two home countries, 74 host countries, seven branches of manufacturing and three points of time between 1982-94 period. Estimations for US and Japanese affiliates were made separately while the observations were pooled across the other three dimensions. Hence, appropriate controls were included in the estimations. Furthermore, the estimations were repeated for sub-samples of developing countries, of specific sectors and points of time if tests indicated structural change. Finally, we have examined if additional considerations apply in explaining the patterns of FDI in modern or knowledge intensive industries. These industries have been defined following in the light of UNCTAD classification to include chemicals and products, non-electrical machinery, electrical and electronic equipment; and scientific instruments (that is subsumed in Other Manufacturing in our classification).

The variable measurements of the dependent and policy variables are as follows. The data source is the Glob-Ted Database compiled at the UNU/INTECH on the basis of the Benchmark Surveys of the US Direct Investment Abroad conducted by the US Department of Commerce and unpublished data from MITI Basic Surveys of Overseas Operations of Japanese Corporations and many other published and unpublished sources as indicated in Kumar (2000a, forthcoming, Data Appendix).

## Dependent Variables

$AFSAL_{hijt}$  : sales of affiliates of MNEs from  $h$  th home country, in  $i$ th host country and  $j$ th sector in  $t$  th year.

$VADSAL_{hijt}$ : extent of relative depth of affiliate production measured in terms of a ratio of value added to value of net sales for affiliate from  $h$ th home country, in  $i$ th host country and  $j$ th sector in  $t$  th year.

$EXPHOM_{hijt}$  : proportion of exports to the home country in total sales of affiliates of MNEs from  $h$ th home country in  $i$ th country, in  $j$ th sector of manufacturing, and at  $t$ th point of time.

$EXPROW_{hijt}$  : proportion of exports to third countries in total sales of affiliates of MNEs from  $h$ th home country in  $i$ th country, in  $j$ th sector of manufacturing, and at  $t$ th point of time.

$AFR\&D_{hit}$ : R&D expenditure reported by affiliates (majority owned in the case of US MNEs) of MNEs based in  $h$ th home country in  $i$ th host country in  $t$ th year, normalized by their sales.

## Explanatory Policy Variables

$OPENNESS_{it}$  : a measure of policy rather than a structural openness of a country; has been estimated by adjusting the trade intensity (total merchandise trade as a percentage of gross national product), for a country's structure in terms of country size, population, per capita income, transport cost (captured by cif/fob value), special natural resource endowment.

$EPZONE_{it}$  : total employment in nearest past year in the export processing zones located in the  $i$ th country.

$PRFREQ_{it}$  : proportion of US affiliates that were imposed certain performance requirements by  $i$ th host country in  $t-5$ th year.

$INCENT_{it}$  : proportion of US affiliates that received investment incentives from  $i$ th host country in  $t-5$ th year.

$TAXINCENT_{it}$ : represents the difference between statutory tax rates and actual or effective tax rates i.e.  $TAXRATE_{it}$ .

$PATENTRIGHT_{it}$ : An index of the relative strength of patent protection available in the host countries representing a sum of a country's performance in terms of five criteria, namely, extent of coverage, membership in international patent agreements, provisions for loss of protection, enforcement mechanisms, and duration of protection. It takes a value between 0 and 5. Nearest years available (viz. 1980, 1985, and 1990) are used.

$LOCONTREQ_{it}$  : proportion of US affiliates that were imposed certain requirements concerning local content by  $i$ th host country in  $t-5$ th year.

$EXCOMT_{it}$  : proportion of US affiliates that were required to export a certain proportion of their output from  $i$ th host country in  $t-5$ th year.

The models were estimated using OLS method in all the cases except for the *AFR&D* where GLS estimations were made in the framework of a Tobit model given a large proportion of limit observations. Heteroskedasticity correction was applied besides normalization of most of the variables for scaling down the variation.

### ***Summary of Findings Pertaining to the Host Country Policy Variables***

The role of various parameters of policy covered in the quantitative exercises is summarised in Table 1 and is discussed below.

#### **Openness of Trade Regime**

Openness of the trade regime is the most important policy variable covered. The affiliate output in all industries as well as in modern industries is positively associated with the extent of openness of trade regime. However, the depth of production in the host country is inversely related with the openness of trade regime especially in modern or technology intensive industries. The implication of these findings is that although a country with a freer trade regime is more attractive location for operations of MNEs, a more open trade regime discourages a deeper integration of their operations with the domestic economy. Hence, if the objective is to make MNEs generate a greater proportion of output within the host country, a somewhat restrictive trade regime is more conducive although it may cost some inflows. The openness of trade regime, however, is more conducive to export-orientation of production especially that geared to third countries. This is because a more open regime facilitates sourcing of inputs from different places. Setting up more export processing zones as a tool of policy which create more liberal enclaves within economies with more restrictive policy regime might also help host countries in attracting the home market oriented FDI inflows. In a related finding the export-orientation of MNE affiliates was associated with a relatively smaller generation of value added per unit of sales. A challenge for the host country policies is to ensure that export-platform production bases set up by MNE affiliates are integrated in the host economy and are not operating as enclaves, as they do in many countries.

The openness of trade regime, however, discourages the R&D investments by MNE affiliates. This is to be explained in terms of the opportunity for adaptations that a relatively restrictive trade regime offers by placing a premium on local content of production. The role of trade policy regime is, therefore, characterized by a number of trade-offs; between the

extent and depth of affiliate production, between domestic versus export-oriented production, and for relative technological independence of the affiliates.

### Performance Requirements

The imposition of performance requirements by host countries at the time of entry, in general, makes them less attractive for MNEs to locate operations. However, specific types of performance requirements are effective in improving the quality parameters they intend to achieve. Local content requirements, for instance, have been found to be associated with a greater extent of localization of production. Export commitments have been found to be effective in prompting MNEs to export a greater proportion of output to third countries. Therefore, a more restrictive FDI policy regime (in terms of imposing performance requirements) too, like trade regime, affects the investment climate in general but may improve the quality of inflows that come. It is a challenge for developing country policy makers to resolve this trade-off between the breadth and depth or possibly quantity and quality of MNE activity by fine tuning these policies to their best advantage in light of their other attractions as locations for production by MNEs.

### Investment and Tax Incentives

Investment incentives offered by host governments are specifically designed to attract MNEs to locate production in their territories. They have been found to be favourably associated with MNEs operations in the country. Since these incentives are generally proportional to the extent of employment created in the host country, they are also favourably associated with the depth of affiliates production. Tax incentives were found to have a greater effect on the affiliate output than on the extent of their localization. The role of investment incentives has been debated in the literature in light of their role in distorting the global pattern of investments. Because developing countries are constrained in their capability to offer cash incentives for attracting FDI, such incentives further concentration of these inflows in industrialised countries which are known to offer large handouts for attracting FDI inflows. Hence, an international intervention to curb investment incentives is required.

### Patent Regime

The strength of patent protection regime of a host country generally has an insignificant relationship with the magnitude of affiliate output or its depth. It remains so even in the modern industries. Finally, the strength of patent protection offered by a host country does

not affect its attractiveness as a location for R&D activity. Other recent work and case study evidence has also corroborated that the lack of adequate patent protection does not adversely affect the attractiveness of a country otherwise well suited for R&D activity. This is because MNEs are able to obviate the constraints placed by the host country's patent regime by registering patents in their home countries. Hence, there seems to be no empirical basis for the presumption of the Uruguay Round Negotiations that stronger patent regimes improve investment climate in the host countries and hence will encourage inflows of FDI.

To sum up therefore, the host government policy plays an important role in augmenting a country's attractiveness for MNEs' operations and to shape their orientation in accordance with the host country's priorities or in other words, its quality. It is quite clear from the above, that there could be considerable trade-off between quantity and quality of FDI inflows and that different types of FDI inflows are governed by different factors. Hence, a more specific targeting of FDI inflows may be more effective. For instance, there is a trade-off between the magnitude and the depth of affiliate production in that former is favoured by openness of trade and investment policy regime while the latter is adversely affected. Similarly export-orientation is favourably affected by openness of trade regime while R&D intensity is inversely related with it. This analysis may help policy makers in developing countries to evaluate their comparative advantages in attracting various types of FDI inflows and formulate a policy package in order to optimize FDI inflows in accordance to their development policy goals and in tune with their comparative advantage in terms of different structural and geopolitical parameters.

#### **4. Implications for WTO and Emerging Multilateral Framework**

The above discussion has highlighted the role of host country policies in shaping the patterns of FDI inflows and their role in development. UNCTAD (1999) has also emphasized on the importance of host government policies in determining the role of FDI in development. The host governments' ability to pursue policies to influence the patterns of FDI inflows, however, are now increasingly curtailed under the emerging international trade regime. The Uruguay Round of Multilateral Trade Negotiations which have led to the WTO regime, for the first time, covered a number of issues that were not on the agenda of GATT and that have important implications for the ability of the host governments to influence the patterns of inflows as we discuss below in the specific context of South Asia.

### ***Trade Liberalization***

Although the previous Rounds of GATT focused on trade liberalization, the WTO ambit on it is much more comprehensive and rigorous. For instance, GATT did not cover non-tariff barriers; WTO regime is comprehensive enough to sanction NTBs besides seeking tariff reduction and bindings. Although exemptions for the use of quantitative restrictions (QRs) for a limited period are allowed on balance of payment (bop) basis, the norms for the exemption have not been spelt out. India has already lost the case in the Dispute Settlement Board for seeking BOP exceptions for maintaining QRs for a longer period than permissible. That implies that it will be difficult to pursue policies that encourage MNEs entering the country to deepen their involvement in the host countries.

On the other hand, India and other developing countries are targets of rising protectionist tendencies in the developed countries. These include rising resort to anti-dumping regulations. In addition, technical barriers to trade (TBT), and sanitary and phyto-sanitary (SPS) measures threaten a significant proportion of exports of India and South Asian countries to developed countries. Since most of the developed countries participate in one or the other regional trading arrangements (i.e. EU or NAFTA) they are also able to enjoy an additional set of exceptions from WTO rules such as rules of origin which are protectionist and in effect act like local content requirements. In addition, developed countries especially US and EU are known to increasingly employ a variety of protectionist measures such as voluntary export restraints (VERs) or orderly marketing arrangements (OMA) and other gray area measures with impunity (ITC/ Commonwealth Secretariat, 1996:163-4). Finally, the margins of tariff preferences for developing countries under the Generalized System of Preferences (GSP) have been eroded with the general reduction in tariff levels. These developments suggest that the process of trade liberalization as a part of the WTO regime has been highly asymmetric.

### ***WTO Investment Regime***

Despite the resistance of developing countries, the Uruguay Round covered the investment issue under its Agreement on Trade Related Investment Measures (TRIMs) which requires member countries to phase-out performance requirements especially of the local content requirement and foreign exchange neutrality type in a phased manner viz. By 1.1.2000 for developing countries (and by 1.1.2002 for least developed countries). Our findings above



reveal that the local content regulations could be important means of deepening the commitment of MNEs entering an economy and for generating local value added, and hence, on employment and the related spillovers of knowledge. These regulations have been used by a large number of developed and developing countries. Indian government has been imposing phased-manufacturing programmes (PMPs) on the automobile manufacturers that have led to development of a vibrant auto-component industry besides valuable externalities in the form of transfer of technology etc. India also imposes dividend-balancing regulation on foreign affiliates in 22 consumer goods industries. Both of these policies will become inconsistent with the provisions of TRIMs Agreement and will have to be withdrawn. Inability of developing countries to impose local content regulations, therefore, will take-away an important measure available to the host governments to influence the quality of FDI inflows.

The TRIMs Agreement also has a built-in provision for a review that will also consider whether the Agreement should be complemented with provisions on investment policy and competition policy. The developed world, however, without waiting for the upcoming review of the TRIMs Agreement, initiated moves to push for a Multilateral Agreement on Investment (MAI) under the aegis of OECD. The OECD had launched negotiations in 1995 to establish a Multilateral Agreement on Investment (MAI) as a legally binding treaty open to even non-OECD member states to ensure higher standards of protection and legal security for foreign investors. In addition, the EU and Canada also made a proposal to create a Possible Multilateral Framework on Investment (PMFI) under the auspices of World Trading Organization (WTO) at its first Ministerial Meeting in Singapore in 1996 with OECD's MAI providing a model, if not to be adopted bodily. This has led to setting up of a working group in WTO to consider the proposal. In any case OECD expected the treaty to become a sort of benchmark for investors to rate the treatment accorded to foreign investors. The core of the OECD's draft MAI was based on the principles of national treatment and most-favoured-nation (MFN) to foreign investors applicable to both pre- and post investment phases. The implication of these provisions was that the host countries would not be able to accord a more favourable treatment to local enterprises over foreign enterprises although a favourable treatment to the latter was not excluded. Since the provisions were to apply to both pre- as well as post- investment phases, the screening mechanisms established by host countries to select FDI projects would not be possible (see for more details, Kumar, 1996b; Panchamukhi, 1996, among others for more details). Furthermore, a MAI type agreement seeking national treatment would require that all types of performance requirements on MNEs would have to

be phased out. This includes export obligations imposed on MNE affiliates that are shown to have enabled host countries make MNE affiliates more responsive to contribute to their export expansion efforts as seen above. Hence, such an agreement, if allowed to go through will foreclose most of the options open to host countries to screen or regulate FDI in tune with their development priorities. In return the multilateral framework could not guarantee greater inflows of FDI. In fact in a post- multilateral treaty regime, the world may see even a greater concentration of FDI inflows in the developed countries than at present because with the standardization and harmonization of policy frameworks across countries, the structural factors alone will drive the FDI inflows. Our empirical analysis has shown that income, extent of urbanization, infrastructure quality, geographical and cultural proximity etc. are important structural factors which tend to favour concentration of FDI inflows in developed countries. Hence, a MAI type of treaty adopted in the framework of WTO might contribute to an even greater marginalization of the least developed countries in the inter-country distribution of FDI inflows than at present.

### ***Patent Regime***

Uruguay Round also included an Agreement on Trade Related Intellectual Property Rights (TRIPs). The TRIPS Agreement provides for the national treatment, a Most-favoured-Nation treatment, and mandatory patenting for any invention in all fields of technology with very few exceptions (such as those on national security grounds). Hence, the South Asian countries including India will have to provide for product patents in food, pharmaceuticals, and chemicals. The term of protection must be 20 years the date of filing uniformly across all patents. The Indian Patents Act provides for 14 years term for all patents and 7 years in the case of pharmaceuticals and chemical process patents. TRIPS Agreement also specifies a phased schedule of implementation of the Agreement according to the level of development of the Member Countries. The developed countries were provided one year to bring their national legislation in tune with provisions of TRIPS Accord viz. by 1 January 1996. Developing member countries had four more years to implement the provisions of the Agreement i.e. by 1 January 2000. An additional period of five years was provided to developing countries that did not provide for product patents in certain areas such as food, pharmaceuticals and chemicals etc. as on 1 January 1995 to provide for these patents. However, all these countries (viz. not providing product patents as on 1 January 1995) were obliged to provide a means for the acceptance of applications for product patent by 1 January 1995 which could be examined according to the criteria when the legislation providing for

product patents is in place. In the transition period, exclusive marketing rights (EMRs) are to be granted for a period of five years from the date of obtaining marketing approval in the country or until a product patent is granted or rejected, whichever period is shorter<sup>3</sup>. Therefore, the transition period provided to developing countries for introducing product patents has been nullified by requiring them to provide EMRs to all applicants for product patents which are in effect recognition of product patents even before they have been examined under the country's laws for their eligibility for grant of patents.

The net effect of these provisions is that Indian patent law needs to be amended by 1 January 2000 in respect of most substantive provisions of TRIPS Agreement except for the provision of product patents for pharmaceuticals and agrochemicals. In addition, India was obliged for providing for evolving a mechanism for receiving the product patent applications and provide to the applicants exclusive marketing rights (EMRs) until their applications have been considered for grant of patents. This has been provided for by a recent amendment to the Indian Patents Act.

The provisions of the TRIPs, thus will bring about many changes in the Indian Patents regime. The most important being the provision of product patents for the chemicals and pharmaceuticals. Many countries including Japan and Korea have used soft patent regimes in early stages of their development to facilitate absorption of knowledge spillovers in the process of development of their technological capability. Indian companies in chemicals and pharmaceuticals also benefited considerably from the soft patent regime and absence of product patents in these industries as they could develop alternative and cheaper processes for manufacturing known chemical compounds. The role of the soft patent regime in facilitating absorption of knowledge spillovers has been documented in the literature (see Kumar and Siddharthan, 1997, for a review). The compliance with the TRIPs obligations thus threatens to disrupt that process of technological development in Indian enterprises besides pushing the prices of drugs upwards. Indian policy makers have to find alternative policy to mitigate the adverse effect of the these changes to minimize the adverse effects on the process of technology development.

## **5. Concluding Remarks: India's Response to WTO and Globalization**

We may now conclude the paper with some remarks for policy options before India in the context of the emerging WTO regime and in the light of the quantitative findings presented above.

So far India like other developing countries has been responding to implement her commitments with respect to liberalization of their trade and investment regimes passively. It has not geared itself up for the new emerging global business environment to expand her access to the world market. In other words, it has generally been on the giving end and not on the receiving end from the supposedly globalizing and liberalizing world economy. In an era, when the developed country trading partners are adopting aggressive, activist and even protectionist trade policies through various gray area measures, a passive approach may be damaging to India's interests. In the developed world, a vigorous process of industrial restructuring and consolidation is currently going on to strengthen the international competitiveness of their national enterprises.

The trend of industrial restructuring and consolidation that is taking place in the developed countries is clear from the recent spate of mergers and acquisitions (M&As) between large MNEs. The industry is first consolidating to create larger and more competitive national champions. For instance, the European pharmaceutical industry is consolidating with mergers of Ciba-Gieigy and Sandoz to form Novartis in Switzerland, of Glaxo and Wellcome in the UK, of Pharmacia and Upjohn in Sweden; merger of Citroen and Renault in French automobile industry Sweden, among others. There is a consolidation at the regional and global level with M&As between the national champions for instance, merger of Daimler-Benz and Chrysler, takeover of Mazda by Ford and so on. The M&As have been prompted by liberalized trade regimes world-wide which force enterprises to strengthen their competitiveness. Hence, factors such as economies of scale, economies of specialization assume importance. Corporations are responding by restructuring their operations to refocus on their core competencies and strengthening their market power. For instance, Volvo of Sweden has sold its car division to Ford and has brought over Scania Trucks to consolidate its hold over the commercial vehicles segment. Where full scale M&As are not possible, strategic alliances are entered into to exploit synergies in their competencies. Like M&As, the strategic alliances between corporations have also multiplied over the past decade.

Because the national or regional champions represent the capability in their respective areas, they are protected and supported strategically by their home governments in a variety of ways. For instance, they are protected from the threat of hostile take-overs. They are given preferences in the government procurements. They are assisted in the markets overseas through tied aid and bilateral credits offered by their home governments. In view of the recognition of the role that technology plays in determining international competitiveness, developed countries are finding different ways of protecting and supporting the innovative activities and technological edge of their national enterprises. The move for stronger intellectual property laws in the Uruguay Round culminating in TRIPs Agreement was a part of this tendency. The governments in the US, EU countries and Japan operate many programmes not only to provide subsidized R&D infrastructure and resources in the form of public funded institutions, but they also directly or indirectly subsidize a substantial part of in-house R&D activity of their national champions (see Kumar and Siddharthan, 1997: Chapter 2 for more details). For instance, the US government's direct subsidies accounted for 28 per cent of the R&D activity performed by business enterprises. The government's share of total R&D expenditure was 47 per cent. In France, the proportions were 20 per cent and 49 per cent respectively. In addition, the European Commission subsidizes the R&D activity of European enterprises under its Framework Programmes with budgets of several billion Euros. The government subsidization of corporate R&D activity is widely perceived to be a part of strategic trade policy in the developed countries, designed to enhance their national enterprises' competitive edge (see Scherer and Belous, 1994: 35; Kumar and Siddharthan, 1997: 24-6). It may be worth noting that while in general all the other measures of subsidization and protection by governments come under the scrutiny of the WTO discipline, the R&D subsidies and investment investments or subsidies which the developed country governments provide are treated as 'non-actionable' in the WTO framework. On the other hand, governments in countries like India are pruning their expenditure on higher education, R&D and technology development as a part of the stabilization and structural adjustment programme. Besides the pockets of excellence and industrial competence that have been built-up over time during the protectionist period are being allowed to wither away in the form of take-overs by foreign MNEs. In this background the following policy responses may be desirable for India.

### ***An Activist Approach to Industrial Competitiveness Policy***

Our quantitative findings have revealed that MNE investment especially in modern or knowledge industries has favoured locations that provide them complementary location bound created assets especially for the knowledge intensive value adding activities. Other scholars, notably Dunning (1998) have also argued that the countries that are able to create ‘a strong nucleus of flagship national firms’ will be better placed to tap the MNEs’ value adding resources than others, especially in the internationally oriented sectors. It comes very close to what we prefer to call ‘national champions’. The national champions can enter into mutually beneficial alliances with foreign multinationals and could also give visibility to national capabilities in those industries.

Taking cues from this discussion, it is imperative that India should also use the emerging world trading system to her advantage rather than confine to passively implementing the schedules of liberalization and commitments of its markets. Otherwise we run the risk of further marginalization in the global economy. This requires a strategic response and concerted action by the government and industry. It would mean that the government and (domestic) industry together cooperate in implementing a ‘industrial competitiveness policy (ICP)’ rather than a conventional industrial policy. The ICP could cover identifying a list of niche areas of strategic interest, identification of potential national champions, encouraging corporate consolidation and restructuring, support and necessary assistance to potential national champions, their protection from hostile take-overs by foreign rivals, among other measures. It would involve identifying the various gray area measures in different WTO Agreements that are not inconsistent with them and exploit them. These include direct R&D subsidies, subsidies for building brand names and trade marks, venture capital firms. This would also call for providing infant industry protection to fledgling domestic industry in select industries for limited period, giving them assured access to domestic market so that they could grow to certain size and muster confidence to enter international markets and globalize their operations. Besides encouraging consolidation of domestic enterprises through take-overs by the emerging national champions, they could be allowed to take-over foreign enterprises in other countries and undertake outward FDI to strengthen their presence outside. Their technological capability, giant scale of operations, combined with increasing international visibility will facilitate mutually beneficial alliances with major global corporations. A couple of Indian enterprises have been able to achieve such distinction e.g.

Ranbaxy which is now much sought after by the global pharma majors like Eli Lilly, Bayer, among others. Many more examples can be replicated.

***Focusing on Maximizing the Contribution of FDI Inflows rather than their Maximizing the Magnitudes of Inflows***

The findings of the quantitative study suggest considerable trade-offs between the quantity and quality of FDI inflows. In a developing country such as India that seeks FDI as a development resource, the focus of the FDI policy should be on maximization of its contribution to the India's development rather than on maximization of the magnitude of inflows by itself. One respect where substantial potential remains to be exploited with respect to MNEs' contribution to India's development is expansion of her exports. MNEs have so far come to India primarily for exploiting her large domestic market and their contribution to India's exports is negligible. In contrast, MNEs account for nearly 40 per cent of China's manufactured exports. Our findings suggest that imposing export commitments on MNEs at the time of entry could be important means of prompting them to explore possibilities of integrating a host country especially those with larger domestic markets, into their regional or global sourcing strategies. Many countries, including China, have successfully tapped these policies formally or informally to push MNEs to contribute to the development of their export capabilities. The export commitments are not inconsistent with the TRIMs Agreement and hence can still be imposed. The evidence also suggests that export-oriented FDIs bring to the host country best practice technology and also cause beneficial information spillovers on the export opportunities and hence could facilitate exporting activity of domestic enterprises as well (see Aitken et al. 1994, for evidence from Mexico).

***Bringing a Strategic Element in the FDI and Technology Import Policies for An Autonomous Path of Expansion***

The experience of East Asian countries has highlighted that selective approach to FDI may provide a necessary condition for charting an autonomous path of internationalization. Evidently, the East Asian newly industrialising economies have consciously sought technology, as much as possible, unaccompanied by ownership with a selective policy. As documented very well in the literature [see for instance, Kim, 1997; Kumar and Siddharthan, 1997], such policy has allowed to the technology importing domestic firms independence of decision making so important for pursuing an autonomous path of expansion. The emergence of Japanese, and of late, Korean and Taiwanese corporations as multinational enterprises in

their own right would not have been possible with technology acquisition under FDI route. It must be emphasized, however, that market transfers alone do not guarantee such outcomes. They only provide necessary conditions and are effective only in the presence of responsive (and perhaps aggressive) local entrepreneurship willing to complement imported knowledge with extensive in-house technological effort on absorption, adaptation, continuous updating and eventually on innovation. In the absence of such effort, technology imports through markets may lead to, as the experience of India has shown, technological obsolescence. However, in view of the recent trends as observed in Kumar (1998b: Chapter 2) revealing the reversal of the trend of licensing's increasing popularity as a mode of technology transfer since the mid-1980s, many technologies especially the new core technologies may not be available on arm's length basis any more. Yet arm's length licensing is still quite popular mode of technology transfer in a number of sectors especially those involving process technologies and may allow certain possibilities of absorption and assimilation.

FDI policy needs to have a strategic perspective particularly in relation to the strategic sectors identified as a part of the industrial competitiveness policy for building local capability. It will have to be pursued in a manner that the foreign entry does not threaten the existence of national champions in an unfair manner.

### ***Policies for Diffusion of Knowledge brought in by MNEs***

Another sphere where governmental intervention may be required to maximise gains from globalization is in diffusion of knowledge brought in by foreign enterprises. An important channel of diffusion of knowledge brought in by MNEs in the host economy is vertical inter-firm linkages with domestic enterprises. A rather slow progress has been observed in terms of generation of vertical linkages with local firms in developing host countries by affiliates of either US or Japanese MNEs (see Lipsey (1998) and Urata (1998)). In addition, FDI abroad by Japanese MNEs tend to transplant the vendor-OEM links prevailing in the home country in that the traditional component suppliers of Japanese equipment manufacturers follow their overseas investments. This pattern tends to limit the generation of local linkages. Therefore, policies promoting generation of vertical interfirm linkages between MNE affiliates and local enterprises will help in diffusion of knowledge brought in by them. Our quantitative analysis has highlighted the potential role that local content regulations could play in pushing the MNE affiliates to deepen their commitment to their host countries. However, these



regulations will have to be phased out under the TRIMs Agreement. The host governments could consider employing proactive measures that encourage foreign and local firms to deepen their local content as a number of countries e.g. Singapore, Taiwan, Korea and Ireland have done so successfully (see Battat, et al. 1996). The knowledge diffusion could also be accomplished by creating sub-national or sub-regional clusters of inter-related activities which facilitate the spillovers of knowledge through informal and social contacts among the employees besides traditional buyer-seller links.

### ***Fostering Enterprise Level R&D in the Post-TRIPs Regime***

The findings reported above have shown that IPR regime does not affect the investment climate in a host country. However, strengthening of IPR regime in tune with TRIPs Agreement's obligations in India has the prospect of adversely affecting the domestic R&D activity especially in the chemicals and pharmaceuticals industry by choking the domestic industry's access to knowledge spillovers from the R&D activity in other countries in the form of product development which formed the basis of process innovative activity of Indian enterprises. Hence, the Indian pharmaceutical industry runs the risk of getting marginalized in the global market because of its inability to compete on the basis of cheaper processes alone in the new regime. It might lead to an international division of labour where Indian companies will concentrate on the price competitive lower end of the market comprising off-the-patent drugs and leaving the monopolistic and more value adding parts of the market to the developed country based MNEs. The government might play a useful role in consolidating the innovative capability in the domestic pharmaceutical industry and help it to nurture through subsidies, protection and building mutually reinforcing linkages between enterprises - public funded laboratories, institutions of higher learning, among others, to foster product innovations. It may now be possible to upgrade the innovative capabilities of some domestic enterprises which had embarked on the process innovations in the wake of the Indian Patents Act 1970 to cover product development rather than allowing it to die.

### ***The Need for Competition Policy***

The policy to support and protect national champions as proposed above has a possible pitfall as it could lead to rent seeking by national champions. So the challenge for policy makers is to ensure that the national champions do not abuse their market power. Some competitive pressure is also necessary for them to sharpen their efficiency and to prompt them to pursue innovation based rivalry. The competition policy could take several forms depending upon

the relative strength of local enterprises and the extent of monopoly. East Asian countries, for instance, have pushed competitiveness of national champions with intense domestic competition and exposing them to international markets by imposing and rigorously monitoring export targets.

The increasing domination of technologies by few large corporations globally as observed by Kumar (1998b: chapter 2) coupled by technoprotectionism in industrialised countries and recently strengthened and harmonised international regime of intellectual property protection also emphasize the need for effective anti-trust regulations in developing countries. The new norms of patent protection treat importing as working of patents and provide to the patent holders greater freedom to opt for exporting to particular markets and choosing not to transfer technology. Furthermore, the recent spurt of the cross-border merger and acquisition activity between large MNEs has adverse effects on the market concentration in many host countries where the affiliates of the merged enterprises operate as competitors. While most industrialised countries are equipped with effective anti-trust regulations to deal with possible abuse of monopoly power of patent holders and anti-competitive effects of international mergers, most developing countries either lack anti-trust legislation designed to deal with such situations or their implementation is poor. The Indian MRTP Act of 1969 is outdated in the current context. In any case it has been emasculated in an 1991 amendment. International initiatives to evolve codes of conduct for transfer of technology and on activities of MNEs have failed to evolve any effective norms. Adoption of effective competition policy instruments either at national levels or collectively at regional levels (à la European Union) to minimise the adverse impact of the possible resort to restrictive business practices by patent holders is also a possible item on the policy agenda of developing countries.

Another aspect of competition policies is to provide a level playing field for local enterprises *vis-a-vis* subsidiaries of MNEs which enjoy access to their parent's brand and trade names besides a number of other intangible assets especially in the context of liberalization of national economies to MNEs. An affiliation with established global chains of companies having a wide range of products and services lends a formidable edge to MNE affiliates over the national firms in the host markets. To use their advantages most effectively, MNE affiliates tend to adopt non-price modes of rivalry characterised by a heavy reliance on marketing and advertising to differentiate their products. These strategies raise barriers for

the entry of new firms and are referred to as 'contrived entry barriers' in the industrial organization literature. The empirical studies have revealed that the advantages enjoyed by MNE affiliates in the form of access to brand names etc. either pushes host country local firms to serve the price competitive lower ends of the markets or to seek alliances with MNEs to buy access to their brand names [see Kumar and Siddharthan, 1997, chap. 7 for a review]. The competition policy to promote a healthy competition between local firms and MNE affiliates could take the form of either offsetting the monopoly power of MNE affiliation and foreign brands through fiscal measures or assisting national firms to build their own brands and technological capability. It is in view of this that some countries attempt to restrict the use of foreign brand names for domestic operations and instead encourage national enterprises to develop local brand names. In the case of pharmaceutical industry, for instance, some countries encourage the use of generic -rather than brand- names to curb the market power of MNEs' brand names.

A national competition policy will take into account all these different aspects. Adoption of the national competition policy will also equip India for taking part in the possible international negotiations on trade and competition policy in the framework of WTO. Although the EU is seeking a WTO mandate on this issue, it might be deferred for the present because of the reluctance of the US to the issue. However, given the fact that a WTO Working Group on the subject is already in existence since the 1996 Singapore Meeting, the issue is expected to likely to be remain alive.

### *Approach to the WTO Negotiations*

Indian government should participate in the forthcoming negotiations within the ambit of WTO in order to protect the national interests and for making the playing field less uneven given the space available for manoeuvre. Some of the implications that flow from the above analysis for WTO negotiations in the near future are as follows.

### Review of TRIMs Agreement

TRIMs Agreement has a built-in mechanism for review latest by 1.1.2000. Along with similarly placed low-income and least developed countries, India should build a consensus in the review for an exception from the provisions of TRIMs based on low level of industrialization. The basis for the new provision could be linked to the per capita manufacturing value-added (MVA) threshold. All the countries with MVA per capita below

that threshold level should qualify for exemption from the provisions of TRIMs. This way the Agreement would have taken care of the development dimension as well as the graduation because once a country reaches the threshold level, it will have to phase out TRIMs.

#### An International Discipline on Investment Incentives

Investment and tax incentives appear to have significantly distorted patterns of foreign production by MNEs in favour of developed countries. The distorting effects of these incentives are similar to those of trade barriers. The governments --both federal as well as local-- need to be brought under some international discipline to curb the use of incentives that distort the patterns of location of production by MNEs just as trade barriers and subsidies to domestic industries are regulated by WTO. Because of 'prisoners dilemma' inherent in the incentives competition, an international agreement to limit the investment distorting incentives would collectively maximize the welfare of participating countries. India could take a proactive initiative in seeking an International Discipline on Investment Incentives with a built-in exception based on level of industrialization as discussed above.

#### Resisting the Possible Multilateral Framework on Investment

The OECD negotiations in MAI have since been abandoned in 1998. The negotiations failed not because of resistance from developing countries. The developing countries were not involved in the process nor were they consulted on the issue. The negotiations failed because of failure of OECD members to reach a consensus on the issue. The OECD members were seeking an investment regime of the standards from other countries that they are willing to give themselves. It is clear from the fact that the lists of exceptions submitted by different countries to the negotiations ran into 700. Now some of the OECD member countries are pushing a MAI type multilateral investment regime on the agenda of the Millennium Round that are expected to be launched at the Third Ministerial Meeting of WTO in Seattle in November-December 1999. Given the fact that WTO membership is infinitely more heterogeneous than the OECD membership covering as diverse groups as rich developed countries, least developed countries, low income countries and so on, it will be rather audacious to expect to bring about a consensus in this forum on the issue as contentious as investment regime. In the light of above discussions developing countries would be well advised to exploit the divisions between the OECD countries on the investment issue that surfaced in the course of MAI negotiations to their advantage and buy some time in the

process to study its implications. For that to happen, however, unity of developing countries will be of critical importance.

**Table 1: Role of Policy Characteristics of Host Countries in Shaping the Patterns of MNE Operation: A Summary of Quantitative Findings**

Variable	Affiliate Output		Depth of Production		Export-orientation		R&D Investment
	All Manf.	Modern Industries	All Manf.	Modern Industries	Home market oriented	Third Country Oriented	
Openness of Trade Regime	+++i	+++i	-,ii	-, -, +	+i	++	-,i-
Export Processing Zones					++		
Performance Requirements	-,ii	-, ii					
Local Content Requirements			++ii	++ii			
Export Commitments						++	
Investment Incentives	+iii	+++I	+++i	+++i			
Tax Incentives	+++I	+++	i+ii	+iii			
Patent Protection	i,i,+,-	iiii, +,-	iiii	i+ii			iiii
Other Factors Controlled or specified in the Model	Population, Income, Distance, Culture, Urbanization, Infrastructure, Tax Rate; Sector, time and regional controls		Population, Income, Distance, Sector, time and regional controls		Infrastructure, Distance, North America, Caribbean, sector and time controls	Infrastructure, Market Size, EU, NAFTA, EFTA and Lome, sector and time controls	Market size, R&D manpower, R&D wages, scale of R&D activity, techno. Specializn., sector, time
N	500 (US); 728 (Japan)	varies across sectors	375 (US), 484(Jap)	varies	432/450	397/442	184/407
F- value	51.92 (US); 40.02 (Japan)	-do-	7.14/ 7.78	-do-	17.01/6.73	27.17/9.77	n.a.
Adjusted R <sup>2</sup>	0.70 (US); 0.53 (Japan)	-do-		-do-	0.36/0.15	0.51/0.25	n.a.

Source: our analysis reported in different chapters of Kumar (2000a, forthcoming).

Note: + indicates significant positive effect; -, a significant inverse effect; i, indicates an insignificant relationship.

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