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Abstract

This paper provides an overview of the changing patterns of O-FDI from India over 1975-2001. It shows that the increasing number of Indian TNCs during 1990s has been accompanied by a number of changes in the character of such investment. These, notably include overwhelming tendency of Indian outward investors to have full or majority ownership, expansion into new industries and service sector, and the emergence of developed country as the most important host region for trans-border activity.

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Jaya Prakash Pradhan

1. Introduction

The emergence of Indian Transnational Corporations (I-TNCs) on the international scene was an early-1960s phenomenon when a few big Indian business conglomerates like the Tata, the Birla and the Kirloskar began to expand their production activities trans-border by investing in Sri Lanka and African countries. Since then Indian economy has seen a continuous growth of I-TNC activity over time with constant changes in the nature, characteristics and motivations of such activities. However, as compared to the past trend, the growth in the phenomenon of Indian enterprises investing abroad has been more rapid only in 1990s. The cumulative number of Indian Joint Ventures (IJVs) approved during 1990s is estimated to be 2562, nearly eleven-fold increase from the number of IJVs permitted during 1975-90 at mere 230. In terms of equity value, this real boom period of I-TNCs activity saw an outflow of $4262 million worth of Indian direct investment as compared to meager $222 million outflow during the pre-1990s period. As a result of this massive outflow the actual stock of Indian direct investment now stood at US$ 6.6 billion by the end of March 2004 (Reserve Bank of India, 2005), a leapfrog jump from US$ 116 million in 1980 (Lall, 1983)[1].

This rise in the propensity of Indian firms to undertake international production is being driven by several internal as well as external factors. Among the internal factors the process of industrialization along with the accumulation of skills, technological capabilities, liberalization of trade and inward and outward FDI (O-FDI) policy during 1990s are the most important causal factors. Looking at the indigenous technological developments it can be said that during last five-decades of industrialization Indian enterprises have made remarkable progress in accumulating and developing local technological capabilities. Although Indian enterprises are far

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1 Lall (1983), Table 2.1, pp. 23. The reported total stock in rupee term is Rs. 926.5 million. It is being expressed in terms of US$ using the exchange rate: US$1=RS.8. This stock figure includes Indian joint ventures in operation as well as under implementation.

from the technological capability to cause large-scale discrete shift in the production function like developed country enterprises, they have significantly improved from their initial status of mere adaptor of foreign technologies to continuously move nearer to the global frontier of technology in many of the knowledge-based industries like information technology and telecommunications, software, transport, and pharmaceuticals. Government's strategic interventions in the form of large-scale public investment in skill formation through general, technical and management education; establishment of several public funded research and technology institutions; and fiscal incentives for innovating firms like duty-free imports of inputs had contributed greatly in strengthening indigenous technological capabilities. The soft patent system adopted by India has legalized reverse engineering as a means of technological strengthening and in industry like pharmaceutical, Indian firms could achieve global recognition for their success. Indian firms continued to expand their created asset bundle by adapting and modifying foreign technology complemented by indigenous R&D. These growing firm-specific technological assets may have motivated technologically advanced Indian firms to exploit their firm-specific advantages in global market place.

The implementation of economic reforms including trade and FDI policy reforms in India during 1990s may be another important internal factor responsible for the rise of O-FDI from India. The trade policy reforms such as dismantling of import licensing system, phasing out of non-tariff barriers (NTBs), and significant reduction in tariff rate[2] have led to increased competitive pressure on Indian firms through free and cheaper imports. Inward FDI policy reforms such as instituting automatic approval route for FDI proposals and gradually enhancing its scope to newer industries, permitting majority foreign ownership levels in overwhelming cases of industries[3], opening up of new sectors to foreign investment[4], providing national treatment to

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2 In 1990s both the peak and average tariff rates of Indian economy have been reduced dramatically. By 1997-98 the peak tariff rates have been brought down to a maximum of 45 percent from 355 percent in 1990-91, and average tariff rates to 20 percent from 87 percent (Source: Trade Policy Review: India, 1998, pp. 46).

3 The general restriction of 40 percent of foreign ownership imposed by the Foreign Exchange Regulation Act (FERA) has been removed and foreign ownership up to 100 percent is allowed in most of the industries except for a small list of industries subject to sectoral caps.

4 These new sectors are mining, oil and gas, banking, insurance, telecommunications, ports and harbours, roads and highways, airlines, defence equipment and scientific journals.

foreign companies, and successive dismantling of performance requirements imposed on foreign firms[5] have led to both expansion in the activities of existing foreign enterprises and large scale entry of new foreign firms into Indian market. The increased competitive pressure from imports and foreign firms has forced Indian enterprises to change their business strategy hitherto dominated by domestic-market-based business expansion and moved towards a strategy of global-market-based expansion. They realized that in an increasingly liberalizing and globalizing economy, domestic market alone cannot ensure firms survival and growth.

The economic reforms process in India has further been complemented by the increasing globalization of the world economy during 1990s. The implementation of policy liberalization measures with respect to trade, investment and technology at various levels viz. multilateral, regional and individual country level, made the world economy more liberalized and economically interdependent. Removal of policy hurdles on a global scale offers large opportunities for capable Indian enterprises and also results in reduction of transaction costs associated with trans-border expansion. For many technologically backward Indian enterprises, O-FDI in the form of overseas mergers and acquisitions (M&As) provides a means of acquiring technology, brand and other competitive advantages overseas to survive in the global market place[6]. In some other cases, firms used O-FDI as a means of establishing trade supporting infrastructure in overseas markets to increase its non-price segment of competitiveness. The liberalization of O-FDI policy of India during 1990s may have provided the ultimate impetus for Indian firms to use O-FDI as a means of competitive strength and survival in the globalizing world economy.

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[5] The performance requirement in the form of phased manufacturing progamme (PMP) was abolished for all new projects way back in 1991-92. The dividend-balancing condition imposed on foreign investment up to 51 percent has been removed in 1992-93 for all non-consumer goods industries and in 2000-2001 the same has been extended to 22 consumer goods items (Pradhan et. al. 2004, see Box1.1). In general the percentage of FDI approval cases containing performance requirement has fallen from 33 percent in 1991 to just about 9 percent in 2000 (Kumar and Singh 2002).

[6] In fact large number of Indian firms engaged in overseas M&As over 2000-2003 were motivated to acquire skills, technology, and distribution networks overseas apart from the objective of accessing overseas market. See Pradhan and Abraham (2005a) for more details.

As an increasing number of Indian enterprises are undertaking trans-border production activities and consequently shifting investible resources abroad in large quantity, this raises two important questions: (1) what is the nature of Indian investment abroad over time? and (2) how is it going to affect the overall development of the home economy? The objective of the present paper is largely confined to the first question only, which involves several issues concerning the evolution of O-FDI from India like: What is the geographical location of Indian O-FDI overtime? Are there any changes in its sectoral composition? Moreover, what is the nature of Indian O-FDI (IO-FDI) equity participation? These questions are to be addressed under the changing O-FDI policy regime in India.

As the study is based on official approval data on O-FDI collected from various sources, a caution is invoked at the outset. Firstly, the actual O-FDI is likely to be different from approved one. Reassuringly at the aggregate level the actual O-FDI stock reported by RBI and that obtained from approval data in the present study appear to differ marginally. According to RBI, at the end March 2002 the stock of Indian O-FDI is about US$ 4 billion while the present study estimated it to be US$ 4.4 billion at end March 2001. Secondly, the official sources on Indian O-FDI in many cases report only the approved O-FDI deal but do not provide the amount of approved equity. Therefore, it is not surprising to note some cases at the firm-level where approved investments appear to be very nominal to support worthwhile manufacturing operation in the host countries[7]. Thirdly, the approval data may not fully reflect India's outward investment because further investments by Indian affiliates generally are not captured by approval data[8]. Finally, O-FDI by Indian companies in tax-heavens like Mauritius may not be truly for manufacturing operation, rather it may be for using the host country as route for further investments in other locations and even for bringing back funds to home country to strengthen managements control over Indian companies[9].
The structure of the paper is as follows: Section 2 discusses the evolution of India's policy regime with respect to O-FDI. Section 3 summarizes the main trends and patterns in FDI outflows from India. Section 4 provides brief case studies of

[7] It could even be due to the fact Indian companies are able to raise funds abroad from their overseas affiliates or from other sources.

[8] Such indirect outward investments could be substantial in some instances as evidenced in the case of Tata group.

[9] The fact that companies like NIIT and Ajanta Pharma have invested more in Mauritius may reflect such nature of investments.

selected Indian multinational enterprises (MNEs) with largest number of O-FDI approvals. Section 5 concludes the paper.

2. India's O-FDI Policy Regime

The Indian government's regulatory framework towards Indian direct investment in joint ventures (JVs) and wholly owned subsidiaries (WOSs) abroad has evolved in two distinct phases since 1978. Before 1978, although the government had permitted Indian Joint Ventures (IJVs) abroad, the policy regime governing O-FDI was yet to take a concrete shape. In 1978 the precise guidelines for IJVs and WOSs abroad were formulated which remained in place until 1992. The second phase in the evolution of O-FDI policy regime cover the whole period after 1992.

The Indian O-FDI policy during the first phase of its evolution was motivated by two main objectives: (i) promoting Indian O-FDI as a tool of south-south cooperation (ii) maximizing economic gains from O-FDI at minimum possible foreign exchange costs to India. The 1978 O-FDI guidelines permit registered Indian companies under the Companies Act, 1956 to undertake overseas direct investment. This policy, underlined in the south-south cooperation, requires that Indian equity participation will have to be in accordance with the rules and regulations of the host country. This condition is a direct result of India's conviction of not allowing its O-FDI to participate in fellow developing countries in ways, which India as a host country would not accept for inward investments (Ranganathan 1988).

The policy also required O-FDI to be clearly in the form of export of indigenous plant, machinery and equipment required for the JVs/WOSs. The export of machinery against Indian investment etc should be of 'Indian made' and not second-hand or reconditioned one. The policy also constituted an Inter-Ministerial Committee (IMC) to permit Indian equity participation by way of capitalization of fees, royalties, and other entitlements after considering the merit of the O-FDI projects. Except the 'hard and deserving' O-FDI cases, cash remittances against Indian equity participation were discouraged given the fact that India itself was suffering from resource scarcity to meet its planned industrialization programme. The Government of India had also established economic divisions in the Ministries of Industry and Commerce to facilitate JVs abroad by collecting and disseminating data on the opportunities for overseas ventures. In short, the basic essence of O-FDI policy before 1992 was inspired by the desire of using Indian direct investment abroad as tool of promoting

Indian exports but without offering any scope for local capital to shift trans-border through cash remittances.

The attitude of Indian government towards O-FDI has changed dramatically in the nineties in the wake of changing developmental parameters of the country. The nineties saw the implementation of economic liberalization in 1991 and subsequent years that have accelerated the integration of the Indian economy with the global economy. The opening of the economy to external world offered new global business opportunities for Indian business enterprises that had accumulated significant levels of 'created assets' like technology, skill, brand-names and marketing advantages. Unless the O-FDI policy regime liberalizes, the Indian firms will not be able to reap the benefits of these enlarged global business opportunities. Further, continuing process of internal and external liberalization is causing heightened competition in the domestic market, thereby limiting the scope for growth of domestic enterprises relying only on the domestic market. Realizing this changing business environment the Government of India has successively liberalized the O-FDI policy regime in the nineties.

The stated objective of 'south-south cooperation' in the earlier phase is replaced by strategic objective of 'global competitiveness' in the second phase. The liberalized policy explicitly recognized: the 'close relationship between flow of investment and trade; the importance of continuously updating the technology through cross investments; more dynamic relationship between market seeking and resource seeking investments; tendency for skill and service intensity rather than material intensity in international flows; the importance of going behind the tariff walls erected by the emerging regional blocs; the trend towards multi-country ownership of enterprises; …'[10].

The modified guidelines for IJVs and WOSs have been issued in October 1992 with the stated objective of making O-FDI policy regime more transparent and suitable in the context of current global developments and Indian business realities. The 1992 guidelines define O-FDI as the investment by way of contribution to the equity share capital of foreign concern with a view to acquiring a long term interest in that concern or subscription to the Memorandum of Association of a foreign entity. For the first time the guideline has provided an automatic approval route for an Indian

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[10] Indian Investment Centre (2000), Guidelines for Indian Joint Ventures and Wholly Owned Subsidiaries Abroad, New Delhi, pp. 2.

company to undertake JVs/WOSs apart from the existing normal route. For O-FDI proposals under the automatic route no prior approval from the regulatory authority is required for setting up a JV/WOS abroad. A direct investment abroad by an Indian business entity will qualify for automatic approval by Reserve Bank of India (R.B.I.), provided the value of Indian equity does not exceed $2 million, of which $500, 000 could be in cash and the rest by the capitalization of Indian exports of plant, machinery, equipment and know-how. The O-FDI proposals under the normal route require the prior clearance of regulatory authority by making a specific application in 'Form ODI' to the RBI.

The O-FDI regime has been further liberalized in August 1995 with enhancement of the investment ceiling under automatic approval route. The permitted value of Indian direct investment under the automatic route has been raised to Rs. 120 crores in Indian rupee investment in Nepal and Bhutan, $30 million in the case of other SAARC countries and Myanmar, and $15 million in all other cases[11]. Further, it is required that the amount of investment under the automatic route, except investments in Nepal and Bhutan as well as investment made by Indian software firms, must not exceed 25% of annual average exports/foreign exchange earnings of the Indian party in the preceding three years. The Indian entity, besides cash remittances against overseas investment, can also contribute by capitalization of Indian made plant, machinery, equipment, goods, and services like know-how, consultancy, managerial services. All applications not falling under the automatic approval route will be referred to a Special Committee appointed by the RBI which has as members, representatives from different Ministries such as Commerce, Finance, External Affairs and from the Department of Company Affairs and RBI. The policy as opposed to 1978 guidelines clearly mentioned that O-FDI under the automatic as well as normal route may take the form of export of second-hand or reconditioned indigenous machinery against Indian equity participation in the foreign concerns.

The regulatory framework for Indian direct investment abroad has been further liberalized with the issue of modified notification in May 1999 by Ministry of Commerce and various other circulars issued by RBI, which are later consolidated in the Master Circular, issued in July 2002[12]. The provisions of existing O-FDI

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[11] Government of India, Ministry of Commerce Notification No. 4/1/93-EP(OI) dated 17th August, 1995.

[12] Reserve Bank of India, Exchange Control Department notification EC.CO.PCD.No. 15.02.76/2002-2003, dated July 12, 2002.

regime are as follows: An Indian party under the automatic route is permitted to make investment in JVs/WOSs abroad (except investment in Nepal, Bhutan and Pakistan) up to $100 million or its equivalent in any one financial year. In the case of Nepal and Bhutan Indian rupee investment up to Rs.350 crores are allowed under the existing procedures. The amount of O-FDI permitted in JVs/WOSs in Myanmar and SAARC (other than Nepal, Bhutan and Pakistan) is up to $75 million or its equivalent in any one financial year. The guidelines require that the direct investment should be in a foreign entity engaged in the same core activity as the Indian party and can be funded out by the balances held in Exchange Earners Foreign Currency (EEFC) account of the Indian party, drawal of foreign exchange including capitalization of exports (up to 50% of the net worth of the Indian party), funds raised through ADR/GDR[13] issues and share swap (i.e. acquisition of the shares of an overseas concern in exchange of the shares of the Indian party). The policy allows Indian company to undertake direct investment in any activity except real estate and banking. The condition that outward investing Indian companies should repatriate the amount invested abroad in full by way of dividend, royalty, etc., within a period of five years has been dispensed with[14].

Recent circulars by RBI in December 2002 and March 2003, has infused more liberalization in the policy. Within the overall limit of $100 million the market purchases of foreign exchange for investment in JVs/WOSs abroad has been raised from the limit of 50 % to 100 % of net worth of the investing company[15]. The condition of ‘same core activity’ has been replaced by ‘any bonafide business activity’. The existing ceiling for Indian investment in Myanmar and SAARC countries (excluding Pakistan) under the automatic route has been enhanced to $150 million from $100 million and to Rs.700 crores from Rs.350 crores for rupee investment in Nepal and Bhutan[16]. Credit institutions are now allowed to support

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[13] ADR-American Depository Receipts and GDR- Global Depository Receipts.

[14] Government of India, Ministry of Commerce Notification No. 4/1/93-EP(OI) dated 18th May 1999.

[15] Reserve Bank of India, Exchange Control Department, A.P. (DIR Series) Circular No. 83, dated March 1, 2003.

[16] Reserve Bank of India, Exchange Control Department, A.P. (DIR Series) Circular No. 58. dated December 2, 2002.

Indian O-FDI both in the form of greenfield and takeovers. More recently in January 2004 the ceiling on O-FDI has been further relaxed and Indian companies are permitted to invest up to 100 percent of their net-worth even if the investment amount exceeds the $100 million ceiling imposed earlier[17]. Indian companies are also allowed to raise external commercial borrowings (ECB) for undertaking overseas direct investment as well as mergers and acquisitions of overseas companies[18].

3. Developments in Indian O-FDI Flows

Like the evolution of O-FDI policy of India, the Indian O-FDI has evolved over time in tune with the developments of the economy in different phases. Based on the nature and character of cross-border production activities undertaken by Indian enterprises, the evolution of the O-FDI from India can be divided into two distinct periods: from 1975 to 1990 and from 1991 to the present. As the evolving character of O-FDI flows relating to these two periods differ significantly from each other, for analytical purpose the O-FDI flows during pre-1991 period has been termed as the First Wave and that from 1991-onwards has been termed as the Second Wave of IO-FDI. The most notable feature of O-FDI during the Second Wave is reflected not only in the growing number of Indian MNEs, but also it is driven by emergence of new sectors (diversification), new destination, and the different patterns of ownership (Figure 1). More details about these changing characteristics of Indian O-FDI have been discussed in the following sections.

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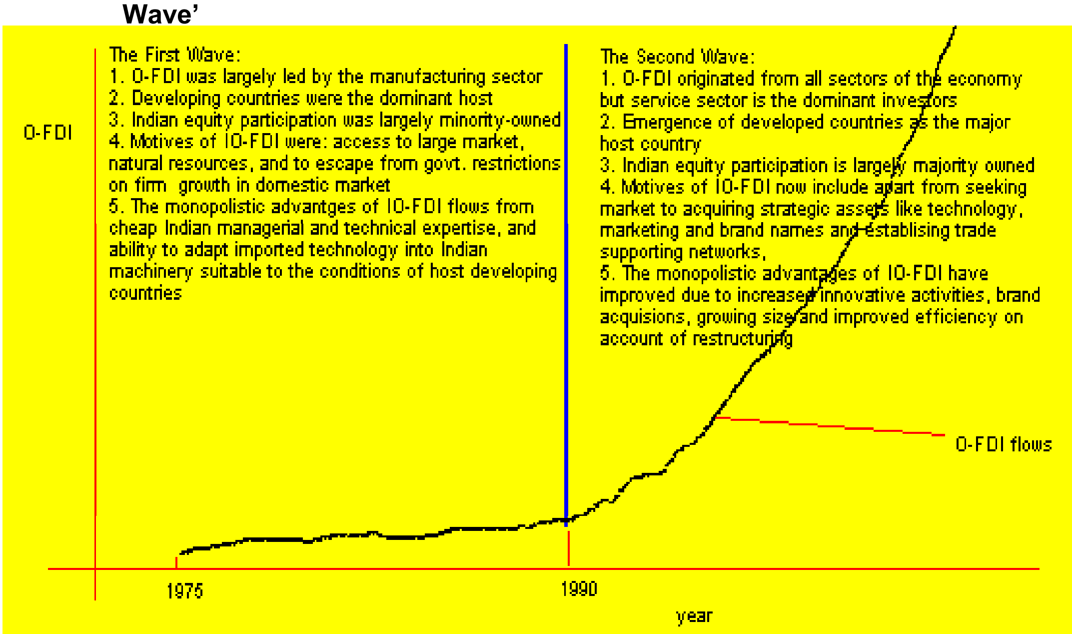
[17] Hindu (2004) 'Indian companies can go global in farm sector: PM lifts ceiling on overseas investments', 10 January.

[18] Reserve Bank of India, Exchange Control Department, A.P. (DIR Series) Circular No.75. dated Feb 23, 2004.

Figure 1: The Evolution of Indian Outward FDI flows from 'First Wave' to 'Second Wave'



Note: It is a free-hand drawn graph.

3.1 The First Wave (up to 1990)

The First Wave O-FDI flows has been largely driven by the manufacturing firms and that internationalization process was largely directed at developing countries located at similar or lower levels of development as compared to India. The manufacturing firms accounted for more than 65 percent of O-FDI equity and about 56 percent in O-FDI approval cases over 1975-90 (see Table-1). The service sector enterprises accounted for about 33 percent and extractive sector, mere 2 percent of Indian overseas direct investment. Low and middle technology manufacturing activities like fertilizer and pesticides, leather, iron & steel, wood & paper had claimed major chunk of Indian O-FDI equity. Financial services & leasing and hotels & tourism were the two largest service sector trans-border investors during this period.

The concentration of Indian O-FDI in manufacturing towards low and medium-high technology products reflects the intermediate stage of economic development through which the country was passing during that time. During this phase the country was moving on the industrialization path with large-scale public investment in skill formation, transportation, communication, and other institutional capacity building. The initial factor endowment of the country like cheap labour, natural resources and low technology intensity generally favoured the growth of those firms that utilized these abundant resources extensively. In high technology products the technological capability of Indian enterprises was more of adaptive and assimilating type that was in transition phase towards maturing into more significant and complex form of knowledge creation during 1990s. Therefore, during the First Wave of O-FDI the Indian enterprises had relied to a greater extent upon simpler and less research-intensive form of technology creation in their trans-border economic expansion process.

The locational direction of Indian O-FDI during this phase also indicates the intermediate nature of O-FDI evolution. During 1975-90 the Indian O-FDI was more concentrated in the developing regions of the world economy as reflected by the fact that about 72 percent of O-FDI approvals were directed at it (Table-2). The concentration is more pronounced in the case of value of investment with developing countries accounting for more that 86 percent share. This general trend of Indian enterprises to focus on developing countries in their internationalization process may suggest that during this phase Indian investors had not yet achieved the sophistication of firm-specific ownership capabilities that can enable them to compete with industrialized country MNEs right inside their home country. Also concentrating on developing countries situated at similar or lower level of development than Indian economy provides Indian firms some competitive advantages over traditional MNEs such as technological advantages flowing from better adaptation of process and products to local prices, factor quality and demand conditions specific to developing countries, de-scaling of techniques and familiarities with business operation of developing region (Lall, 1983; Agarwal, 1985).

Within developing region the countries of South-East and East Asia emerged as the largest recipient of Indian O-FDI claiming about 36 percent, followed by Africa with 17 percent, West Asia and Central Asia with 10 percent each and South Asia with 9 percent (Table-2). Latin America and the Caribbean remain as the least attractive region for Indian overseas investment. Therefore, during the First Wave, the forces of proximity in geography, languages, history, and ethnicity have had strong impact on the locational decision of Indian outward investors. The countries in South-East and East Asia that had the advantages of geographical proximity coupled with strong historical and ethnic links were more attractive for Indian investors than too remotely related Latin American countries in terms of such advantages. Table-3 provides list of top 20 major host countries of Indian O-FDI during the First Wave. The top 20 had attracted about 84 percent of O-FDI approvals and 86 percent of O-FDI equity. Thailand emerged as the largest recipient of Indian O-FDI claiming more than 12 percent of O-FDI flows associated with 14 O-FDI approvals. It is followed by Singapore with 19 O-FDI approvals accounting for about 12 percent of total O-FDI equity. The UK and US turn out to be two developed countries that secured 5th and 6th place in the ranking based on the share in O-FDI and each had claimed about 6 percent.

Another important feature of trans-border Indian direct investment during 1975-90 is that the participation of Indian equity was minority-owned in large number of O-FDI cases. Nearly 64 percent of O-FDI projects approved was observed to have had Indian ownership participation of less than 50 percent and only about 13 percent of approved cases were having more than 80 percent of equity participation (Table-4). This trend of outward investing Indian companies to have minority participation can be attributed to the government policy during this phase that had imposed restriction on Indian equity participation.

The existing literature on the First Wave of Indian O-FDI suggests that the main motives of such production activities were to escape from restrictive business environment of the home country generated by a plethora of government regulations placing restriction on the growth and diversification of large firms and sluggish growth in domestic demand. They are motivated by the desire to exploit the growing markets of their host countries. In addition, the high costs of domestic and imported inputs adversely affecting export competitiveness have also led to overseas production by many Indian firms (Lall, 1983; Agarwal, 1985; Lall, 1986). It seems that Indian overseas ventures during this wave were little backed by ownership advantages based on advanced technologies.

3.2 The Second Wave (1991 Onwards)

The evolution of Indian O-FDI flows from First Wave to Second Wave has seen several significant changes in the character and nature of production activities. Firstly, in 1990s the O-FDI activities by Indian firms has been largely driven by the service sector enterprises who accounted nearly 60 percent of the value of O-FDI and 52 percent of O-FDI approvals granted (Table-5). The share of manufacturing enterprises has declined from 65 percent in First Wave to only 39 percent during Second Wave. This decline in the share of manufacturing sector during 1990s has been largely contributed by the fall in O-FDI flows from three largest outward investors of the previous wave namely fertilizers & pesticides, leather & shoes and iron & steel. Importantly, the second wave O-FDI flows had seen the emergence of drugs & pharmaceuticals industry as an important outward investor whose share in total O-FDI has jumped from 2 percent of first wave to 6 percent in second wave. Among services sector, the old outward investor giants such as hotel & restaurant and financial services had seen dramatic decline in their share from 11 percent to 3 percent and from 12 percent to 2 percent respectively. During the second wave Indian IT industry and broadcasting & publishing emerged as the two largest service sector investors and were also the two largest outward investors from the economy with 32 percent and 17 percent share respectively.

The emergence of knowledge-based segment of Indian economy such as drugs & pharmaceuticals, software and broadcasting as the leading outward investors indicate the rapid pace at which India is enhancing global position in knowledge-based economy. During the second wave the technological capabilities of Indian enterprises have seen diversification towards basic and frontier research activities under the facilitating role of national innovation system. For example, many of the leading Indian pharmaceutical firms like Ranbaxy, Dr Reddy Labs among others have made significant progress in directing their R&D focus for new product developments. May be modestly, the ownership advantages of Indian O-FDI in industries such as pharmaceutical, software and transport are now seems to be based on advanced technologies[19].

Location-wise the Indian O-FDI has moved away from developing countries to industrialized countries during the second wave. Out of each dollar overseas investment made by the economy about 60 cents has gone into developed region (Table-6). The developed countries namely the UK and USA were the top two hosts of Indian O-FDI during this period, jointly accounting for more than half of the total O-FDI (Table-7). Among developing regions the South-East and East

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[19] In fact, in a recent study the in-house R&D has emerged as a significant factor influencing the overseas direct investment activity of Indian manufacturing enterprises. For the sample enterprises over 1990s, a percentage point increase in R&D intensity, on an average, leads to an increase of 0.0028 in the probability of non-outward investing Indian firms to undertake O-FDI and about 0.086 in the O-FDI intensity of outward investing enterprises (see Pradhan, 2004, Table 1, pp. 629).

Asia has reported the largest decline from 36 percent during first wave to mere 9 percent during second wave. The other developing regions that witnessed decline in attractiveness as a host of Indian O-FDI were Central Asia and Africa. Latin America has seen some improvement in its hosting role from less than 1 percent to 4 percent. These changing locational distributions of O-FDI from India therefore, indicate that the ownership advantages of Indian enterprises are increasingly finding larger role in advanced countries. Further, advanced countries being service driven economies, are offering growing markets for service sector Indian MNEs particularly from software sector (Pradhan 2003).

Due to the relaxation of the government policy on Indian equity participation, the O-FDI projects approved during the Second Wave takes the form of majority-ownership in bulk of the cases. Out of a total number of 1119 projects for whom Indian equity participation is known, 637 O-FDI approvals have equity participation more than 80 percent nearly accounting for 57 percent of the total approvals (Table-8). There are only 271 number of O-FDI approvals, nearly a quarter of total, that had Indian equity participation of less than 50 percent. Therefore, clearly Indian outward investors prefer majority ownership in their trans-border production ventures during the Second Wave as opposed to their tendency for minority ownership during the First Wave.

The motivation of O-FDI has also undergone significant changes in the nineties as compared to seventies and eighties. It has seen a rapidly evolving character from mere market access and natural resource seeking type to that of trade-supporting and strategic asset seeking type. Many of Indian enterprises are using O-FDI as a tool of international competitiveness. The economic presence of the company through its subsidiaries in overseas market ensures closer interaction between sellers and buyers and better after-sales services, which contribute an important ingredient for international competitiveness (Kumar, 1998). Therefore, the set of motivations for overseas productions by Indian enterprises are now broad based and particularly in the case of overseas acquisitions they are motivated not only to access international market but also to acquire firm-specific intangibles like technology and human skills and benefits from operational synergies. Thus, O-FDI has emerged as a strategic business decision to overcome constraints from limited home market growth, and to survive in an increasingly competitive business environment (Pradhan and Abraham 2005a).

4. Top Outward Investing Indian Firms

Table-9 provides a list of top 40 Indian companies in terms of number of O-FDI approvals. An important finding from this Table is that India's knowledge-based industries like software and pharmaceutical industry have contributed the largest number of outward investing firms to this group of top 40 outward investors. There are 14 firms from Indian software industry and 8 firms from Indian pharmaceutical industry which jointly claim for 22 largest outward investors from Indian economy among the top 40 group.

In terms of the number of O-FDI approvals, National Institute of Information Technology Ltd. (NIIT) turns out to be the largest Indian MNE. It has to its credit 29 O-FDI approvals amounting to $51 million. From a humble beginning in 1981, within a very short span of time, NIIT has emerged as a leading global player in the international computer education market and IT services offering a wide spectrum of services including e-commerce, offshore development, applications maintenance and support, knowledge solutions, consultancy and data processing.

The evolution of NIIT can be seen in two phases (see Pradhan and Abraham, 2005b for more details). During 1980s the company, focusing on the concept of IT education, has expanded remarkably in the domestic market. After playing a major role in the accumulation of IT skills and know-how, the company diversified into the software domain and turned itself into a global business success during 1990s. One important strategy adopted by the company in its drive for the global expansion is O-FDI strategy. The brief period between 1994 and March 2001 has witnessed 29 O-FDI activities by the firm directed at both developed and developing countries (see Table-10). The developed region has attracted 13 O-FDI approvals of the company divided into 5 in USA, 4 in UK, 3 in Netherlands and 1 in Japan. The remaining 16 O-FDI approvals have gone into developing region, 9 in Singapore, 5 in Mauritius, and 2 in Indonesia. In terms of the equity amount Mauritius has claimed the largest chunk of O-FDI by the company at about $33 million, accounting for nearly 64 percent of total O-FDI undertaken. It was followed by Singapore with US$ 9 million, nearly 16 percent of the total O-FDI. Apart from undertaking Greenfield trans-border investment, the company is recently involved in strategic asset seeking type of investment through brown field investment. The years 2002-03 has seen several acquisitions with international dimensions such as the acquisition of Osprey Systems in March 2002; Data Executives International (DEI) on September 2002 (Business Line, 2002), Cognitive Arts in February 2003, all being in the US market.

Outside the US market, the company has acquired AD Solutions AG of Germany in 2002, specializing in developing custom solutions and providing development-outsourcing services to penetrate into European market[20].

After NIIT, Ajanta Pharma and Usha Martin both have emerged as the second largest foreign investors with 18 O-FDI approvals each. Ajanta Pharma is an emerging Indian pharmaceutical company with a strong presence in three different segments of OTC market namely childcare, pain relievers and lifestyle premium products. The company also has entered the ethical market in 1997. Even though Ajanta Pharma is a medium size firm in the industry, it has got a focus R&D division to carry out basic research including developing patentable natural products and new drug delivery systems. Niche products of the company like Carofit, Ocugold, Rufage, and Livoplus are result of its indigenous R&D efforts. The company has already filed 15 patents in India and has got the South African and the US patents for its product Carofit. With its innovative indigenous technological efforts the company is attempting to expand its operation in the global pharmaceutical market. Total exports consisting of direct exports and joint ventures exports constitute about 45 percent of the income of the company[21]. The share of joint ventures exports is nearly 50 percent of the total exports.

Clearly the company has adopted O-FDI strategy as an important tool of global competitiveness. Geographically, the O-FDI activity of Ajanta Pharma has been primarily directed at catering to the CIS (Commonwealth of Independent States) market namely Uzbekistan, Ukraine, Turkmenistan, Kazakhstan, Krygyzstan and Tajikistan with as many as 13 O-FDI approvals obtained by the company had gone into these countries (Table-11). The company has presence in Mauritius with 4 O-FDI approvals to serve the African market as Mauritius is a member of African countries trading block namely COMESA (Common Market of Eastern and Southern Africa). Though, in 1996, the company has got 1 O-FDI approval directed at the US market, its O-FDI operation has been largely located in the developing countries. The ownership participation by the company in its

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[20] Business Line (2002) 'NIIT acquires Click2learn assets' Friday, Jan 25, 2002; Business Line (2002) 'NIIT acquires German firm' Friday, Nov 15, 2002; Business Line (2002) 'NIIT acquires US company' Thursday, Sep 05, 2002

[21] CEO Talk Purushottam Agrawal, Managing Director - Ajanta Pharma Limited, at http://www.myiris.com, 8 August 2001.

subsidiaries varies between 35% in the case of Tajik Ajanta Pharma Ltd to 100% in the case of Ajanta Pharma (Tashkent) Ltd and Kyrgyz Ajanta Pharma Ltd each[22].

Usha Martin- a manufacturer of wire ropes, wires, wire rods and underground jelly-filled cables is the largest rope manufacturing company in India and one of the top five in the world also has used trans-border production strategy to strengthen its global position. Although the company had gone for trans-border production way back in 1977, the extent of such activities has been more pronounced during the nineties with as many as 15 O-FDI approvals relating to this period out of the total 18 O-FDI approvals granted to the company (Table-12). Majority of O-FDI approvals got by the company during 1990s has been directed at two developed markets namely, the USA and UK together claiming about 11 O-FDI approvals.

Ranbaxy Laboratories Ltd., which is one of India's largest transnational research driven pharmaceutical company and ranked as the 11th largest Public Generics Company in the world[23], stood as the third largest outward investor from Indian economy with 16 O-FDI approvals amounting to worth $40.14 million. It is one among the early outward investors from India with its first international JV being set up in Nigeria way back in 1977. Thereafter, the company has been consistently using O-FDI, both green field as well as takeovers, as a means of expanding global presence. The incidence of O-FDI activity undertaken by the company has been more frequent in the 1990s-the phase which has seen the liberalization of the Indian economy including policy regime for O-FDI. This phase has claimed 10 approvals out of the total 16 O-FDI approvals granted to the company over 1977-1999 (Table-13). Except Canada and Netherlands, the trans-border JV-activity has been largely confined to the developing regions of the world economy.

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[22] The ownership participation of Ajanta SPharma Ltd. in its subsidiary Surkhan Ajanta Pharma Ltd. (Uzbekistan) is 51 percent, Ajanta Pharma (Mauritius) Ltd. is 88 percent, Ajanta Pharma (Tashkent) Ltd. (Uzbekistan) is 100 percent, Ajanta Pharma (USA) Inc. is 90 percent, Kazakh Ajanta Pharma Ltd. (Kazakhstan) is 87.5 percent, Kyrgyz Ajanta Pharma Ltd. (Krghystan) is 100 percent, Tajik Ajanta Pharma Ltd. (Tajikistan) is 35 percent and Turkmenderman Ajanta Pharma Ltd. (Turkmenistan) is 50 percent.

[23] http://www.indiainfoline.com/comp/ranb/mr01.html

Aptech Ltd. is the fourth largest outward investor from India in terms of the number of O-FDI approvals. It has got 14 O-FDI approvals aggregating to $8 million (Table-9). All these O-FDI ventures are being undertaken in the latter half of the nineties. Geographically, the O-FDI by Aptech is directed more at developed market region claiming more than four-fifth of O-FDI equity, the US (39.8 percent), UK (26.5 percent), Australia (8.7 percent), and Ireland (8.9 percent) (Table-14). Like NIIT, it also began by offering training and education in information technology in India and later diversified into software solutions after gaining a strong presence in the Indian training and education segment. The company has three training brands, namely Aptech Computer Education, Asset International and Arena Multimedia. The former caters to the software engineering needs of both the retail and corporate segments and latter two offer multimedia and design services. Due to overseas expansion strategy, the company is now operating globally with its subsidiaries in major software markets. The company has also undertaken a host of strategic alliances with many educational institutions like Open University, Columbia, Canada and IGNOU[24], India and with business companies like Microsoft, Oracle, IBM, Lotus,

Pasona Tech, Australian IT Careers Institute (AITCI), etc to boost its trans-border expansion. Aptech also has undertaken strategic acquisitions to increase its presence in the international market. The acquisition of Specsoft Consulting Inc. (Business Line, 2000) and 37.5 percent stake in Turboguard.com Inc. (Business Line, 2001) are attempts in this direction[25]. The company is having major plans of increasing its presence in China (where it is already running 44 IT education centers) (Business Line, 2001), South Africa, Botswana, Namibia, New Zealand and Hungary (Business Line, 2000)[26].

Asian Paints- India's largest paint company which ranks among the top ten decorative coatings companies in the world, turns out to be the fifth largest Indian transnational company. The company has 13 O-FDI approvals amounting to $8.3

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[24] Indira Gandhi National Open University

[25] Business Line (2000) 'Aptech buys US firm for $10 m' Tuesday, August 01, 2000; Business Line (2001) 'Aptech to take majority stake in US firm' Wednesday, January 24, 2001.

[26] Business Line (2000) 'Aptech to expand global reach' Monday, October 02, 2000; Business Line (2001) 'Aptech to expand China presence' Saturday, July 28, 2001

million (Table-15). Asian Paints is one of the few Indian companies that has used the strategy of global production consistently to transform itself to become a major world player. The company had undertaken its first overseas JV, APCO Coatings, in 1977 in Fiji. Thereafter the company had undertaken 3 JVs in 1980s located in Nepal, Solomon Island and Tonga. There are 8 JVs approvals obtained by the company during 1990s. At present Asian Paints got manufacturing facilities in the emerging markets of Indian sub-continent, Southeast Asia, Far East, Middle East, South Pacific, Caribbean, Africa and Europe. In 2002, the company had acquired a controlling stake of 50.1% in Singapore Exchange-listed company, Berger International Limited for $11.8 million and a 60% stake in SCIB Chemicals of Egypt for $5 million[27]. Following these strategic acquisitions the company now has 27 manufacturing locations globally.

5. Concluding Remarks

This paper analyzed the changing patterns of O-FDI from India. The evolution of IO-FDI has been divided into two waves- 'First Wave' covering the period 1975-90 and 'Second Wave' covering the period 1991 onwards. The analysis shows that the O-FDI from India has increased considerably during Second Wave as compared to First Wave. The First Wave O-FDI flows was dominated by a few manufacturing sectors and was largely limited to developing countries. The patterns of O-FDI changed in the Second Wave when Indian firms began to invest abroad on a much larger scale than before, originated from almost all sectors of the economy and increasingly from service sector dominated by software industry. Locationally, these are more developed country oriented and tend to be majority-owned projects. The motives of I-TNCs for investing abroad is not only of market seeking types but have expanded to include access to strategic assets and skills overseas, enhancing non-price segment of global competitiveness through establishing trade-supporting infrastructure, and circumventing the effects of emerging trading blocs on a regional basis by gaining insider status.

[27] Source: http://www.asianpaints.com/testhome/companyinfo/pressroom.

Table 1: The First Wave and Sectoral Composition of O-FDI Flows from India, 1975-90, in Million US $

Sector	1975-80		1981-85		1986-90		1975-90			
	No	Equity	No	Equity	No	Equity	No	Equity	No (% of Total)	Equity (% of Total)
Exploration & refining of oil			1	0.02			1	0.02	0.43	0.01
Exploration of minerals & precious stones	2	4.02					2	4.02	0.87	1.81
Extractive	**2**	**4.02**	**1**	**0.02**			**3**	**4.04**	**1.30**	**1.82**
Oilseeds, food products & processing	4	5.76	1	0.22	5	3.08	10	9.06	4.35	4.07
Textiles and garments	7	7.2	2	0.25	3	1.55	12	9	5.22	4.05
Wood, pulp and paper	1	8.24			2	3.27	3	11.51	1.30	5.17
Leather, shoes & carpets					4	20.55	4	20.55	1.74	9.24
Chemicals, petro-chemicals & paints	6	6.03	6	0.61	6	1.18	18	7.82	7.83	3.52
Drugs & pharmaceuticals	1	0.4	3	1.96	4	2.36	8	4.72	3.48	2.12
Rubber, plastic & tyres	1	0.8	1	0.59	4	0.93	6	2.32	2.61	1.04
Cement, glass & building material	1	1.65			1	2.54	2	4.19	0.87	1.88
Iron and steel	6	11.51	2	2.71	2	1.95	10	16.17	4.35	7.27
Electrical & electronic equipments	2	0.89	2	0.22	2	1	6	2.11	2.61	0.95
Automobiles and parts thereof	3	2.55	2	0.6	1	0.06	6	3.21	2.61	1.44
Gems & jewellery	1	0.00					1	0.00	0.43	0.00
Electronic goods & consumer durables	2	0.27					2	0.27	0.87	0.12
Beverages & tobacco			6	2.24	1	1	7	3.24	3.04	1.46
Engineering goods & metallurgical items	6	5.3	9	2.37	3	0.86	18	8.53	7.83	3.83
Fertilizers, pesticides & seeds			2	24.3	3	15.63	5	39.93	2.17	17.95
Miscellaneous			3	1.69	7	0.9	10	2.59	4.35	1.16
Manufacturing	**41**	**50.59**	**39**	**37.77**	**48**	**56.86**	**128**	**145.22**	**55.65**	**65.28**
IT, communication & software			2	0.01	4	5.63	6	5.64	2.61	2.54
Hotels, restaurants, tourism	8	10.86	6	2.03	10	12.07	24	24.96	10.43	11.22
Civil Contracting & engineering services	3	0.77	1	0.00	2	1.03	6	1.8	2.61	0.81
Consultancy	1	0.09	5	0.11	1	0.23	7	0.43	3.04	0.19
Trading & marketing	9	2.9	4	1.97	14	7.6	27	12.47	11.74	5.61

Table 1 (Contd…)

Media broadcasting & publishing	1	0.00	1	0.01			2	0.01	0.87	0.00
Financial services & leasing	6	3.71	3	0.01	8	22.6	17	26.32	7.39	11.83
Transport services			2	0.25	1	0.3	3	0.55	1.30	0.25
Other professional services	2	0.07	2	0.8	3	0.18	7	1.05	3.04	0.47
Services	**30**	**18.39**	**26**	**5.18**	**43**	**49.63**	**99**	**73.2**	**43.04**	**32.91**
Total	**73**	**73**	**66**	**42.96**	**91**	**106.49**	**230**	**222.45**	**100.00**	**100.00**

Note: This dataset has been compiled at RIS from the published reports of the Indian Investment Centre and unpublished data from the Ministry of Commerce and Ministry of Finance.

Source: Computation based on RIS Outward FDI dataset.

Table 2: The First Wave and Regional Distribution of O-FDI Flows from India, 1975-90, in Million US $

Region	**1975-80**		**1981-85**		**1986-90**		**1975-90**			
	No	**Equity**	**No**	**Equity**	**No**	**Equity**	**No**	**Equity**	**No (% of Total)**	**Equity (% of Total)**
South-East and East Asia	31	38.94	8	3.55	28	38.3	67	80.79	29.26	36.32
South Asia	8	11.72	14	2.87	8	6.32	30	20.91	13.10	9.40
Pacific Islands	1	0.14	2	0.08			3	0.22	1.31	0.10
Africa	10	12.8	12	22.82	7	2.21	29	37.83	12.66	17.01
West Asia	6	2.31	7	2.99	6	16.24	19	21.54	8.30	9.68
Central Asia					4	23.2	4	23.2	1.75	10.43
Central and East Europe	1	2.09			10	4.37	11	6.46	4.80	2.90
Latin America & the Caribbean					2	0.58	2	0.58	0.87	0.26
Developing Countries	**57**	**68**	**43**	**32.31**	**65**	**91.21**	**165**	**191.52**	**72.05**	**86.09**
Western Europe	13	4.56	14	0.69	13	12.04	40	17.29	17.47	7.77
North America	3	0.45	7	2.07	13	10.99	23	13.51	10.04	6.07
Oceania	1	0.08					1	0.08	0.44	0.04
Other Developed Countries										
Developed Countries	**17**	**5.09**	**21**	**2.76**	**26**	**23.04**	**64**	**30.89**	**27.95**	**13.89**
Total	**74**	**73.09**	**64**	**35.07**	**91**	**114.3**	**229**	**222.46**	**100**	**100**

Source: Same as Table 1.

Table 3: Top 20 Major Host of Indian O-FDI in terms of Volume of Outward Investments during First Wave, ($ Million)

Country	No	%	Equity	%	Ranking Based on Equity
Thailand	14	6.11	27.524	12.37	1
Singapore	19	8.30	26.504	11.91	2
Kazakhstan	2	0.87	21.3	9.57	3
Senegal	1	0.44	16.5	7.42	4
UK	31	13.54	14.176	6.37	5
USA	23	10.04	13.514	6.07	6
Indonesia	9	3.93	12.663	5.69	7
Malaysia	17	7.42	12.208	5.49	8
Sri Lanka	16	6.99	9.946	4.47	9
Nigeria	13	5.68	9.363	4.21	10
Nepal	13	5.68	9.083	4.08	11
Kenya	7	3.06	4.411	1.98	12
Russia	8	3.49	4.137	1.86	13
Saudi Arabia	4	1.75	3.131	1.41	14
UAE	8	3.49	2.16	0.97	15
Bangladesh	1	0.44	1.88	0.85	16
Egypt	2	0.87	1.105	0.50	17
Bahrain	3	1.31	1.016	0.46	18
Uzbekistan	1	0.44	0.6	0.27	19
Panama	2	0.87	0.583	0.26	20
Sub total top 20	**194**	**84.72**	**191.80**	**86.22**	
All countries	**229**	**100**	**222.46**	**100**	

Source: Same as Table 1.

Table 4: The Structure of Indian Ownership Participation during First Wave (1975-90)

Equity Range (%)	No of O-FDI Approval	Percent	Cumulative Percent
0 to 20%	51	22.9	22.9
20 to 50%	91	40.8	63.7
50 to 80%	53	23.8	87.4
80-100%	28	12.6	100.0
Total	223	100.0	

Note: Only those O-FDI approvals are taken for whom the information on Indian equity participation is available.

Source: Same as Table 1.

Table 5: The Second Wave and Sectoral Composition of O-FDI Flows from India, 1991-March2001, in Million US $

Sector	1991-95		1996-Mar2001		1991-March2001			
	No	Equity	No	Equity	No	Equity	No (% of Total)	Equity (% of Total)
Exploration & refining of oil	2	1.52	3	59.58	5	61.10	0.20	1.43
Exploration of minerals & precious stones	1	0.01	1	0.03	2	0.04	0.08	0.00
Extractive	**3**	**1.53**	**4**	**59.61**	**7**	**61.14**	**0.27**	**1.43**
Oilseeds, food products & processing	32	31.94	59	37.4	91	69.34	3.55	1.63
Textiles and garments	53	44.84	105	67.72	158	112.56	6.17	2.64
Wood, pulp and paper	4	0.7	7	17.02	11	17.72	0.43	0.42
Leather, shoes & carpets	20	11.45	43	16.96	63	28.41	2.46	0.67
Chemicals, petrochemicals & paints	23	52.95	71	39.18	94	92.13	3.67	2.16
Drugs & pharmaceuticals	55	54.48	108	215.76	163	270.24	6.36	6.34
Rubber, plastic & tyres	10	2.84	35	82.96	45	85.80	1.76	2.01
Cement, glass & building material	17	27.47	41	52.31	58	79.78	2.26	1.87
Iron and steel	18	14.38	29	36.27	47	50.65	1.84	1.19
Electrical & electronic equipments	14	6.42	49	84.44	63	90.86	2.46	2.13
Automobiles and parts thereof	6	2.93	20	21.07	26	24.00	1.02	0.56
Gems & jewellery	16	6.25	40	11.6	56	17.85	2.19	0.42
Electronic goods & consumer durables	11	8.82	18	11.93	29	20.75	1.13	0.49
Beverages & tobacco	19	17.61	18	124.44	37	142.05	1.44	3.33
Engineering goods & metallurgical items	23	13.35	61	52.89	84	66.24	3.28	1.55
Fertilizers, pesticides & seeds	5	32.87	22	294.09	27	326.96	1.05	7.67
Miscellaneous	93	76.89	91	106.69	184	183.58	7.18	4.31
Manufacturing	**419**	**406.2**	**817**	**1272.72**	**1236**	**1678.92**	**48.26**	**39.39**
IT, communication & software	87	120.84	674	1233.65	761	1354.49	29.71	31.78
Hotels, restaurants, tourism	23	52.88	30	59.57	53	112.45	2.07	2.64
Civil Contracting & engineering services	19	2.45	25	14.12	44	16.57	1.72	0.39
Consultancy	7	1.53	24	6.54	31	8.07	1.21	0.19
Trading & marketing	132	90.89	14	5.56	146	96.45	5.70	2.26
Media broadcasting & publishing	6	0.5	55	739.14	61	739.64	2.38	17.35
Financial services & leasing	39	37.92	57	57.57	96	95.49	3.75	2.24
Transport services	18	11.17	26	37.16	44	48.33	1.72	1.13
Other professional services	25	7.6	57	43.09	82	50.69	3.20	1.19
Services	**356**	**325.77**	**962**	**2196.4**	**1318**	**2522.17**	**51.46**	**59.17**
Total	**778**	**733.5**	**1783**	**3528.73**	**2561**	**4262.23**	**100**	**100**

Source: Same as Table 1.

Table 6: The Second Wave and Regional Distribution of O-FDI Flows from India, 1991-March2001, in Million US $

Region	1991-95		1996-Mar2001		1991-March2001			
	No	Equity	No	Equity	No	Equity	No (% of Total)	Equity (% of Total)
South-East and East Asia	159	191	220	208.35	379	399.35	14.79	9.37
South Asia	65	59.11	132	98.28	197	157.39	7.69	3.69
Pacific Islands	1	0.05			1	0.05	0.04	0.00
Africa	64	59.07	190	454.87	254	513.94	9.91	12.06
West Asia	69	73.54	116	302.96	185	376.5	7.22	8.83
Central Asia	26	13.99	23	37	49	50.99	1.91	1.20
Central and East Europe	62	37.31	13	3.72	75	41.03	2.93	0.96
Latin America & the Caribbean	7	8.36	29	172.24	36	180.6	1.41	4.24
Developing Countries	**453**	**442.42**	**723**	**1277.4**	**1176**	**1719.82**	**45.90**	**40.35**
Western Europe	177	149.4	388	1300.8	565	1450.2	22.05	34.02
North America	133	110.79	616	918.73	749	1029.52	29.23	24.15
Oceania	11	5.43	41	9.77	52	15.2	2.03	0.36
Other Developed Countries	4	25.8	16	21.97	20	47.77	0.78	1.12
Developed Countries	**325**	**291.4**	**1061**	**2251.2**	**1386**	**2542.6**	**54.10**	**59.65**
Total	**778**	**733.82**	**1784**	**3528.7**	**2562**	**4262.52**	**100**	**100**

Source: Same as Table 1.

Table 7: Top 20 Major Host of Indian O-FDI in Terms of Volume of Outward Investments in the Second Wave ($ Million)

Country	No	%	Equity	%	Ranking Based on Equity
UK	334	13.04	1133.801	26.60	1
USA	738	28.82	1023.957	24.02	2
Mauritius	183	7.15	414.8566	9.73	3
Oman	17	0.66	163.7604	3.84	4
Bermuda	12	0.47	153.753	3.61	5
Singapore	192	7.50	131.3507	3.08	6
Hong Kong	60	2.34	127.2596	2.99	7
UAE	124	4.84	108.8276	2.55	8
Sri Lanka	82	3.20	96.811	2.27	9
Netherlands	46	1.80	95.1295	2.23	10
Iran	3	0.12	59.9	1.41	11
Austria	11	0.43	47.328	1.11	12
Malaysia	57	2.23	46.548	1.09	13
Nepal	75	2.93	43.345	1.02	14
Italy	10	0.39	42.291	0.99	15
Thailand	26	1.02	37.362	0.88	16
Uzbekistan	24	0.94	35.374	0.83	17
Saudi Arabia	13	0.51	28.0698	0.66	18
Germany	68	2.66	27.509	0.65	19
Ireland	9	0.35	27.4964	0.65	20
Sub total top 20	**2084**	**81.37**	**3844.73**	**90.20**	
All Countries	**2561**	**100**	**4262.23**	**100**	

Source: Same as Table 1.

Table 8: The Structure of Indian Ownership Participation During Second Wave (1991- March 2001)

Equity Range (%)	No of O-FDI Approval	Percent	Cumulative Percent
0 to 20%	41	3.7	3.7
20 to 50%	230	20.6	24.2
50 to 80%	211	18.9	43.1
80-100%	637	56.9	100.0
Total	1119	100.0	

Note: Only those O-FDI approvals are taken for whom the information on Indian equity participation is available.

Source: Same as Table 1.

Table 9: Top 40 Indian Companies in Terms of Number of O-FDI Approvals

Company	No.	%	Equity (Million $)	%	Activity
NIIT Ltd.	29	7.06	51.3	5.05	Software
Ajanta Pharma Ltd.	18	4.38	13.57	1.33	Pharmaceutical
Usha Martin	18	4.38	35.41	3.48	Iron & steel
Ranbaxy Laboratories Ltd.	16	3.89	40.14	3.95	Pharmaceutical
Aptech Ltd	14	3.41	7.92	0.78	Software
Asian Paints India Ltd.	13	3.16	8.31	0.82	Paint
Essel Propack Ltd	13	3.16	88.71	8.73	Laminated tubes
United Phosphorous Ltd.	13	3.16	3	0.29	Agrochemical
Ramco System Ltd.	12	2.92	25.18	2.48	Software
Larsen & Toubro Info Tech	12	2.92	25.73	2.53	Engineering and cement
Voltas International Ltd.	12	2.92	1.8	0.18	Air conditioning, refrigeration and engineering
Cottage Industries Expositions Ltd	11	2.68	1.66	0.16	Handicrafts, carpets, textiles
Mastek Ltd.	11	2.68	3.86	0.38	Software
Dr.Reddy's Labs Ltd.	10	2.43	9.63	0.95	Pharmaceutical
Great Eastern Shipping Co. Ltd.	10	2.43	11.5	1.13	Shipping
Information Technologies Ltd	10	2.43	7.98	0.79	Software
Infosys Technologies Ltd.	10	2.43	7.66	0.75	Software
Tata Exports Ltd.	10	2.43	4.01	0.39	Trading
Dabur India Ltd.	9	2.19	10.66	1.05	Drug & Pharmaceuticals
ISC Consultancy Services P. Ltd.	9	2.19	0.55	0.05	Software
Oberoi Hotels (I) P. Ltd.	9	2.19	2.03	0.2	Hotels & restaurants
Sun Pharmaceuticals Ind	9	2.19	28.05	2.76	Drug & Pharmaceuticals
Arvind Mills Ltd	8	1.95	17.49	1.72	Textiles
BFL Software Ltd.	8	1.95	168.54	16.58	Software
Core Healthcare Limited	8	1.95	24.69	2.43	Drug & Pharmaceuticals
Globsyn Technologies	8	1.95	0.58	0.06	Software
Polaris Software Labs Pvt. Ltd.	8	1.95	2.22	0.22	Software
Roha Dyechem Ltd.	8	1.95	1.25	0.12	Dyeing
Tata Tea Limited	8	1.95	106.46	10.47	Tea
Videocon Intl	8	1.95	45.28	4.45	TVs and audio products
Wockhardt Ltd.	8	1.95	78.19	7.69	Drug & Pharmaceuticals
Akshay Software Technologies	7	1.7	0.2	0.02	Software
Ansal Housing & Constructions Ltd.	7	1.7	4.1	0.4	Construction
Elgi Tyres & Tread Ltd	7	1.7	0.61	0.06	Rubber & rubber products
Hexaware Infosystems	7	1.7	2.66	0.26	Software
Indian Hotel Co.Ltd	7	1.7	43.86	4.31	Hotels & restaurants
Lupin Laboratories Ltd.	7	1.7	8.59	0.84	Drug & Pharmaceuticals
Punj LLoyd Ltd.	7	1.7	5.5	0.54	engineering and software
Silverline Industries Ltd.	7	1.7	101.95	10.03	Software
SRF Ltd.	7	1.7	20.84	2.05	industrial yarn and fabric
Total of top 40	411	100	1016.53	100	

Source: Same as Table 1.

Table 10: The O-FDI Operation of NIIT, 1994-2001

Country	**Activity**	**Year (No. of O-FDI Approval)**	**Total No of O-FDI Approvals**	**Equity (Million $)**
Indonesia	IT training	1995(1) 1996(1)	2 (6.90)	1.01 (1.97)
Japan	Software development	1995(1)	1 (3.45)	3 (5.85)
Mauritius	Software development, Internet and E-Commerce Services	1998(1) 2000(3) 2001(1)	5 (17.24)	32.75 (63.85)
Netherlands	Software development	1999(1) 2000(2)	3 (10.34)	0.006 (0.01)
Singapore	Software development, motion picture, Civil engineering consultancy	1995(2) 1996(1) 1997(1) 1998(2) 2000(3)	9 (31.03)	8.53 (16.63)
UK	Software development	1995(1) 1998(1) 1999(1) 2000(1)	4 (13.79)	5 (9.75)
USA	Software development	1994(1) 1995(1) 1998(2) 2000(1)	5 (17.24)	1 (1.95)
Grand Total			29 (100)	51.296 (100)

Note: Percentage shares in parentheses
Source: Same as Table

Table 11: The O-FDI Operation of Ajanta Pharma, 1994-1998

Country	Activity	Year (No. of O-FDI Approval)	Total No. of O-FDI Approvals	Equity (Million $)
Kazakhstan	Drugs & pharmaceuticals	1994(2) 1997(1)	3 (16.67)	4.5 (33.17)
Krghystan	Drugs & pharmaceuticals	1997(1)	1 (5.56)	1.57 (11.57)
Mauritius	Drugs & pharmaceuticals	1995(1) 1996(2) 1997(1)	4 (22.22)	2.663 (19.63)
Tajikistan	Drugs & pharmaceuticals	1995(1) 1997(1)	2 (11.11)	0.795 (5.86)
Turkmenistan	Drugs & pharmaceuticals	1993(2)	2 (11.11)	1.2 (8.84)
Ukraine	Drugs & pharmaceuticals	1997(1)	1 (5.56)	0.05 (0.37)
USA	Drugs & pharmaceuticals	1996(1)	1 (5.56)	0.18 (1.33)
Uzbekistan	Drugs & pharmaceuticals	1993(1) 1997(2) 1998 (1)	4 (22.22)	2.61 (19.24)
Grand			18 (100)	13.568 (100)

Note: Percentage shares in parentheses.
Source: Same as Table1.

Table 12: The O-FDI operation of Usha Martin, 1977 to 2000

Country	Activity	Year (No. of O-FDI Approval)	Total No. of O-FDI Approvals	Equity (Million $)
Liechtenstein	Iron & Steel	1977(1)	1 (4.8)	2.09 (5.9)
South Africa	Iron & Steel	1999(1)	1 (4.8)	1.258 (3.6)
Thailand	Iron & Steel	1977(1) 1999(1)	2 (9.5)	7.77 (21.9)
U.A.E.	Iron & Steel	1995(1) 1996(1)	2 (9.5)	1.35612 (3.8)
UK	Iron & Steel	1994(1) 1997(1) 1998(1) 1999(2) 2000(2)	7 (33.3)	20.6034 (58.2)
USA	Iron & Steel	1997(1) 1998(2) 2000(1)	4 (19.0)	0.239 (0.7)
Yugoslavia	Iron & Steel	1979(1)	1 (4.8)	2.09 (5.9)
Total	Iron & Steel		18 (100)	35.41 (100)

Note: Percentage shares in parentheses.
Source: Same as Table 1.

Table 13: The O-FDI Operation of Ranbaxy Laboratories Limited 1977-1999

Country	Activity	Year (No. of O-FDI Approval)	Total No. of O-FDI Approvals	Equity (Million $)
Canada	Pharmaceuticals	1993(1)	1 (6.25)	1.55 (3.86)
China	Pharmaceuticals	1993(1) 1996(2)	3 (18.75)	5.90 (14.70)
Hong Kong	Pharmaceuticals	1992(1)	1 (6.25)	0.03 (0.07)
Malaysia	Pharmaceuticals	1983(1) 1996(1) 1998(1) 1999(1)	4 (25.00)	0.78 (1.94)
Netherlands	Pharmaceuticals	1993(1) 1997(2)	3 (18.75)	30.00 (74.74)
Nigeria	Pharmaceuticals	1977(1) 1988(1)	2 (12.50)	1.57 (3.91)
Thailand	Pharmaceuticals	1987(1) 1996(1)	2 (12.50)	0.31 (0.77)
Grand Total			16 (100)	40.14 (100)

Note: Percentage shares in parentheses.
Source: Same as Table1.

Table 14: The O-FDI Operation of Aptech, 1996-2001

Country	**Activity**	**Year (No. of O-FDI Approval)**	**Total No of O-FDI Approvals**	**Equity (Million $)**
Australia	Software development	1998(1) 1999(1)	2 (14.3)	0.687 (8.7)
Bahrain	Software development	1996(1) 2000(1)	2 (14.3)	0.615 (7.8)
Bangladesh	Software development	1998(1)	1 (7.1)	0.109 (1.4)
Ireland	Software development	1998(1)	1 (7.1)	0.701 (8.9)
Malaysia	Software development	1997(1)	1 (7.1)	0.037 (0.5)
Singapore	Software development	1997(1) 2001(1)	2 (14.3)	0.521 (6.6)
UK	Motion picture	1998(1)	1 (7.1)	2.099 (26.5)
USA	Software development	1997(1) 1999(1) 2000(2)	4 (28.6)	3.15 (39.8)
Grand Total			14 (100)	7.919 (100)

Note: Percentage shares in parentheses.
Source: Same as Table 1.

Table 15: The O-FDI Operation of Asian Paints, 1977-1999

Country	**Activity**	**Year (No. of O-FDI Approval)**	**Total No of O-FDI Approvals**	**Equity (Million $)**
Australia	Paints & varnish	1993(1) 1997(1) 1999(1)	3 (23.08)	0.791 (9.51)
Fiji	Paints & varnish	1977(1)	1 (7.69)	0.14 (1.68)
Kenya	Paints & varnish	1998(1)	1 (7.69)	6.5 (78.18)
Mauritius	Paints & varnish	1992(1) 1999(2)	3 (23.08)	0.393 (4.73)
Nepal	Paints & varnish	1984(1)	1 (7.69)	0.13 (1.56)
Oman	Paints & varnish	1999(1)	1 (7.69)	0.223 (2.68)
Solomon Islands	Paints & varnish	1984(1)	1 (7.69)	0.063 (0.76)
Tonga	Paints & varnish	1981(1)	1 (7.69)	0.02 (0.24)
Vanuatu	Paints & varnish	1992(1)	1 (7.69)	0.054 (0.65)
Grand			13 (100)	8.314 (100)

Note: Percentage shares in parentheses.
Source: Same as Table 1.

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