Journal of Contemporary Asia
Vol. 38, No. 4, November 2008, pp. 613–637

Routledge
Taylor & Francis Group

The Second Wave of Indian Investments Abroad

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ABSTRACT *This article makes an assessment of the recent international expansion of Indian companies by contrasting it to the earlier – much more modest – wave of investments abroad. It also traces the evolution of the Indian government's policy towards outwards investments and makes the claim that an important reason for the rise of investments abroad is the gradual relaxation of the Indian government's restrictions on capital outflow after the economic reforms of the 1990s. The new Indian investments abroad are characterised by being dispersed over a very large number of countries and economic sectors and – most remarkable – Indian companies are now also targeting the markets in Europe and the USA through acquisitions of local companies. At the same time, Indian companies have continued to expand their presence in other developing countries, where their activities may contribute to both economic progress and a reduction of economic dependence on relations with developed countries.*

KEY WORDS: Transnational corporations, Third World multinationals, South-South relations, India, globalisation

More than twenty years ago, in the late 1970s and early 1980s, a debate arose over the growth of South-South economic relations, their driving forces and their potential impact on the developmental prospects of the involved countries. Central in this debate stood a relatively new phenomenon, the growth of Third World multinationals, including Indian multinationals.[1] This debate was linked closely to the political struggle by leading developing countries to establish a New International Economic Order with the prospects of achieving "collective self-reliance."[2] A less benign view saw the new outward investments and trade activities of some developing countries as a result of the dynamic progress of capitalism in the developing world and as a sign of emerging new forms of imperialism or sub-imperialism (Dutt, 1984). The economic crisis that hit many developing countries during the 1980s – especially those in Africa and Latin America, but also the oil-rich countries of the Middle East that experienced a relative decline in wealth accumulation – resulted in a decline in South-South economic interaction, especially in trade. Subsequently, the political debate on South-South relations and the intellectual debate on Third World multinationals faded away.

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ISSN 0047-2336 Print/1752-7554 Online/08/040613-25 © 2008 *Journal of Contemporary Asia*
DOI: 10.1080/00472330802311787

The rise of China, as also the earlier spectacular growth experience of the East Asian Newly Industrialising Countries, in particular South Korea, has again brought attention to the fact that companies from these more advanced developing countries are in the middle of a "second wave" of expanding their international operations and now constitute an often-neglected aspect of the overall phenomenon of economic globalization (Dunning et al., 1998). The fact that Indian companies are fast entering their own "second wave" has not, however, figured prominently in the intellectual debate. In this article I therefore portray the recent expansion abroad of Indian companies (the "second wave") and contrast it with the earlier "first wave." The purpose of this is twofold. First, it is of some theoretical interest to investigate the motivations or driving forces behind the two waves of international expansion, separated in time, but clearly having elements of continuity. Secondly, I find it of interest, both theoretically and in policy terms, to discuss the developmental potentials inherent in this process for those countries receiving investments, in particular developing countries.

As mentioned above, the theoretical aspect most in focus in the discussion of the first wave of Indian investments abroad lay on its South-South impact. Many saw the rise of South-South relations in general as a process that potentially could lead to a decline in the involved countries' economic dependence on the North. In addition, it was hoped that South-South investments would have new and hopefully more "development-friendly" impact on recipient countries, different from the activities of Northern transnational corporations. In contrast, the current wave of investments abroad enters a different intellectual debate. Now the rising Indian investments abroad are seen more as indications of India's growing participation in the process of globalisation, of its new-found global economic ambitions and of Indian companies as the latest member group in the expanding community of global business corporations.

A significant part of Indian investments abroad are today directed towards developed nations, especially the USA and the UK. Despite this, a part of Indian investment projects abroad are still directed towards developing countries in Asia and in Africa. It remains relevant to investigate whether these investments represent alternatives – hopefully better alternatives – to investments from Northern transnational corporations. While the empirical evidence remains limited and fragmented, this article seeks to clarify some of the issues involved.

Indian Government Policies Towards Investments Abroad

The prospect of Indian companies investing abroad has always presented a dilemma for the Indian government. As a poor country with scarce capital and limited foreign exchange resources, India has – like most other poor countries – been highly restrictive in releasing the foreign exchange necessary for an Indian company to invest abroad (for policies in Korea and Taiwan, see Thurbon and Weiss, 2006). At the same time, investments abroad have been seen as a potential way of promoting Indian exports. This became recognised officially in the government's *Export Policy Resolution 1970* (Indian Investment Centre, 1981a; Institute of Company Secretaries of India, 1983: 24). Before 1969, there was no specific government policy to regulate outward investment flows, and the necessary approvals for companies wanting to invest abroad were given on an *ad hoc* basis. In that year, the government issued a set of general guidelines governing Indian joint ventures abroad (Table 1). The

Table 1. Indian government policies towards investments abroad by Indian companies

Dates	Policy contents
1969 (effective from 1970)	General Guidelines Governing Indian Participation in Joint Overseas Industrial Ventures • only industrial ventures • only minority Indian participation • no cash remittances for setting up companies • Indian participation in the form of machines, equipment, technical know-how etc. • machinery should be of Indian origin • preference for training in India
1978	Guidelines Governing Indian Joint Ventures Abroad • including other sectors than industry: consultancy, trading, mineral exploration, services etc. • focal point: Ministry of Commerce, Inter-ministerial Committee[a] • encourage association with local partners to the maximum extent feasible • Indian participation now includes know-how, service fees, raising of foreign loans, loans from investing company and cash. Permission for this to be merit-based. Foreign exchange needs considered by Reserve Bank of India
1985 (effective from 1986)	Guidelines Governing Indian Joint Ventures Abroad • only investments by companies, not individuals • financial soundness and past export performance are essential criteria • wholly-owned subsidiaries included in policy • tighter specifications on merit-based exceptions from general rules. Stringent monitoring requirements • emphasis on ensuring the control over the venture by the Indian partner
1992	Guidelines Governing Indian Joint Ventures/Wholly-owned Subsidiaries Abroad • states explicitly that financial sector is not included • introduces automatic approval for smaller investments (<\$US2 million total, cash <\$US500,000) • streamlining of procedures for other investments. Merit-based approvals • more operational freedom to investors, provided no additional financial transfers from India are required • compulsory remittance to India of company dues in foreign exchange
1995 (effective from 1 December 1995)	Guidelines For Indian Direct Investment in Joint Ventures and Wholly-owned Subsidiaries Abroad • Reserve Bank of India is single window clearance agency. Annual performance report required. Annual investment ceiling introduced • automatic ("fast track") approval limit raised to \$US4 million • some financial services (insurance, mutual funds etc.) are included; banking is excluded • special committee processes investments between \$US4 million and \$US15 million. Committee includes Ministry of Commerce, Finance and External Affairs

(*continued*)

Table 1. (*Continued*)

Dates	Policy contents
	• investments larger than $US15 million will be considered if resources beyond this amount are raised internationally. Requires consent of Ministry of Finance • acquisitions of foreign companies included in policy
1996 onwards	Further gradual liberalisations: • investment ceiling raised annually and removed from 1 April 2003 • more sectors included (e.g. agriculture). Only real estate and banking sectors continue to be excluded • progressively less stringent requirements and simplified procedures

[a]The Committee was established in 1974 and was formally included in the 1978 policy guidelines.
Sources: ICSI (1983); IIC (1995a); NABHI, 1993; Reserve Bank of India (2005b).

guidelines were quite restrictive, reflecting primarily the need to conserve foreign exchange. Indian companies were, for this reason, only permitted to invest as minority partners in overseas projects and the Indian contributions were to be made in the form of machines, equipment or technical know-how, not as a cash contribution. The policy thus ensured that investments abroad would automatically result in increased exports of Indian-made machinery. Investments would only – and probably again for the same reason – be permitted in the industrial sector and the stipulation of Indian minority participation was motivated explicitly by a concern to involve local parties in the venture. It was evident that the policy guidelines were formulated under the assumption that Indian investments abroad would be undertaken in other developing countries who were supposed to derive some benefits from the ventures.[3] At the institutional level, the Indian Investment Centre (IIC), which had been established in December 1960 to promote foreign investment in India, was to support and monitor the new overseas investment projects (Agrawal, 1984: 38).

The Foreign Exchange Regulation Act, enacted in 1973, included provisions that specifically ensured that companies wishing to invest abroad had to seek permission from the government – initially the Ministry of Commerce and subsequently an Interministerial Committee – and from the Reserve Bank of India (RBI). While the initial government guidelines were quite restrictive, later revisions have liberalised the rules to a very considerable degree. In 1978, new guidelines were issued that extended the range of sectors in which Indian companies could invest abroad, and the rules permitted companies to finance investments through foreign loans and through cash contributions if endorsed by the RBI. The general stipulations of the desirability of associating with local partners and of exporting Indian machinery remained, however. In 1986, yet another set of guidelines meant a tightening of the performance criteria for companies investing abroad and a more stringent monitoring of the investment projects. Wholly-owned subsidiaries were now included in the policy guidelines and, even in the case of Indian minority participation in an overseas venture, the guidelines stipulated that the Indian partner should have a decisive say in the running of the enterprise. The desirability of associating with local partners was still mentioned, but its importance had clearly been downgraded. The emphasis on export promotion and conservation of foreign exchange remained in place and was sharpened: "... Indian equity participation should be clearly in the form of export of indigenous plant, machinery and equipment" and "... cash remittance not be allowed for meeting the Indian equity contribution, but the hard and deserving cases, may be considered on merit" (NABHI, 1993: 22). The new guidelines introduced in 1992 followed upon the general policy changes represented by the new economic policies introduced in 1991. The new guidelines conformed to the new trend of economic liberalisation, with the introduction of automatic approvals for smaller investments and a simplification of the approval procedures. Instead, a reliance on annual performance reports was introduced. In 1995, the liberalisation of the government's policies became even more pronounced, with the appointment of the RBI as the single window clearance agency, the opening up for investments in financial sectors and increased opportunities to access foreign resources to finance investments.[4] As a precaution, however, an annual ceiling of $US500 million on the total amount invested abroad by Indian companies was introduced. Since 1995, the liberalisation of the rules and procedures for outward investments has continued, with a gradual increase of both the overall investment ceiling and the separate limit for automatic investment approvals. Approval procedures have also been simplified. Since 1 April 2003, the overall investment ceiling has been abolished and Indian companies today are practically free to invest abroad.

Parallel with the evolution of the policy guidelines for investment approvals, the Indian government had introduced a variety of tax incentives for companies engaged abroad, including tax exemptions for royalty payments, commission fees, dividends and the like from ventures abroad and tax reductions for Indian technicians working abroad (ISCI, 1983). In 1978, the government's export credit insurance agency, the Export Credit & Guarantee Corporation, introduced a special overseas investment insurance. The establishment in 1982 of a separate Export-Import Bank of India (EXIM Bank) also included a separate facility for providing loans for investments abroad (Agrawal, 1984). The Indian government had thus by the early 1980s established the basic institutional framework for supporting the overseas expansion of Indian capital. The government has also been active in facilitating bilateral investment flows through entering into a large number of bilateral investment treaties with selected countries. As a result, the number of such treaties increased substantially during the 1980s and it has continued to grow during the 1990s.[5]

Despite the official policy initiatives to encourage Indian investments abroad and the general liberalisation of the policy guidelines for approving investment projects, the foreign exchange position remained a prominent concern. This is reflected in statements in government documents during the 1970s and 1980s, when investments were growing and government support was expanded. The government would thus express its concern: "... What must be ensured is that the outflow of investment from India does not assume unduly large proportions" (IIC, 1981b: 4). And, much later, in the 1995 guidelines, the government would still caution that, "... there can be a massive outflow of foreign investment by companies if not monitored carefully ..." (IIC, 1995a: 2). Besides expressing a concern for investment outflows, the statement also reflected an assessment of the large potential for investing abroad that the Indian companies were thought to possess. This assessment proved to be correct. The RBI reported that in the very first year after it had taken over the administration of the by now more liberal rules guiding the approval of foreign investment projects, the number of approvals had reached 251, the highest number ever approved during a single year (Reserve Bank of India, Press Note, December 1996).[6]

The Growth of Indian Outward Investments – Basic Statistics

In historical perspective there is little new in seeing Indian businessmen operating abroad. Indian business enterprises have interacted with the outside world for centuries, primarily as traders, but occasionally also as investors. During colonial times, Indian businessmen did invest in simple raw material-processing facilities (e.g. rice mills) in those parts of the British Empire with which they had trading relationships (East Africa, Burma, Ceylon), but for the most part the owners and managers established themselves in the host country while maintaining close links with India (Morris, 1987). The first truly industrial investment abroad by an Indian company took place only in the late 1950s when the large Indian industrial conglomerate Birla established a textile mill in Ethiopia.[7] During the 1960s, a number of other industrial ventures were started in Kenya with assistance from the local Indian Embassy, and industrial projects were established also in Uganda, Nigeria, Malaysia, Thailand and Ceylon. Most of these early investment projects were undertaken by companies from the Birla conglomerate (Morris, 1987).

Following upon these pioneering investment activities, it was during the 1970s that the first wave of Indian investment projects abroad materialised. Judged from the data collected by UNCTAD (Figure 1), net outflows of investments were not particularly large, but the figure does show a small "bump" indicating that

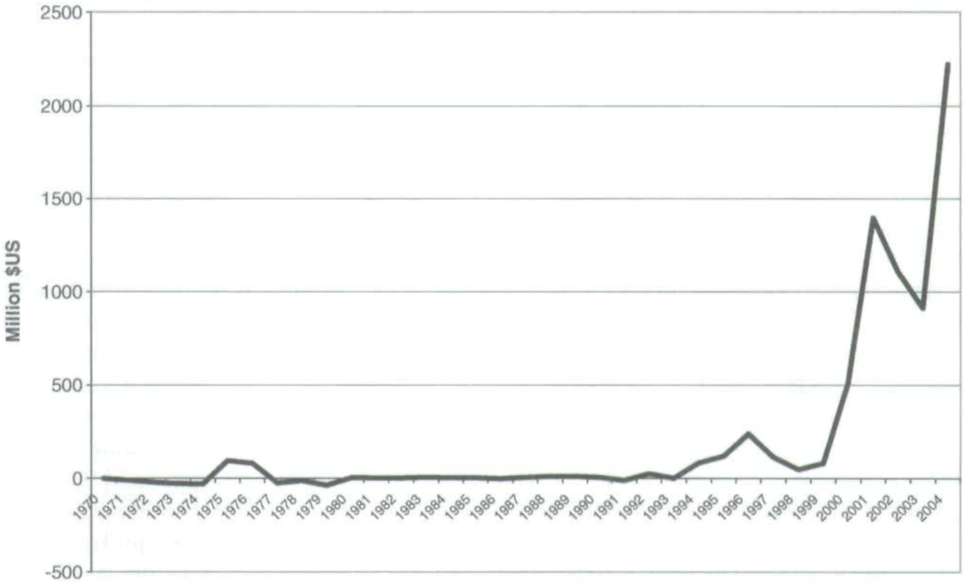

Figure 1. Annual net outflows of foreign direct investments from India, 1970-2004.
Source: UNCTAD (2006)

something did indeed happen on the investment front during the 1970s. Given the restrictions on cash outflows at the time, it is likely that the actual investment activities were somewhat larger than indicated by data on financial outflows. More detailed company-level data on investments abroad by Indian companies have occasionally been published by the IIC and the Ministry of Commerce from the early 1970s to 1995, when both investment approvals and monitoring was shifted to the RBI. Since then, company-level data have not been available, which constitutes a major problem for research into the second wave of Indian investments abroad. It also necessitates a division of data into before-and-after 1995 sets.

The IIC figures are based upon the approvals given by the Inter-Ministerial Committee within the Ministry of Commerce according to the general guidelines as they have evolved over time. Many of the investment projects approved by the Committee never materialised, however, and in addition many projects that did materialise were abandoned subsequently. To illustrate this, before 31 December 1972, 145 investment projects had been approved by the government. Thirty-six of these projects had gone into production, 64 had been abandoned while 45 projects were still under implementation (Prasad, 1976: 125, table 9). Ten years later, 465 projects were reported to have been approved. 134 projects had become operational, 86 were under implementation, 49 projects had been abandoned and 196 had never been implemented (IIC, 1983: 27-8). This pattern with a substantial number of approvals not materialising or having to abandon production shortly after being implemented was distinctive for the whole period of the first wave (IIC, 1983: 15) and was one of the reasons the government decided to tighten the approval procedures in 1986.

The published data are known to understate the true magnitude of Indian investments abroad for several reasons. Some existing foreign investment projects were never properly registered, subsidiaries were generally (but not always) left out and the measurement of the size of the investment has been inadequate (Morris, 1987: 1913).[8] Despite these shortcomings, the IIC data will be used here, as they are the only credible data available. Furthermore, they can be assumed to reflect fairly correctly the dynamics of investments abroad. Contrary to most other studies that deal with Indian investments abroad, I only show investments abroad that have resulted in operating enterprises and do not include investment projects "under implementation." Thus, the data presented underestimate, to some degree, the true magnitude of actual investment activities.

Investments Before 1995

During the 1970s and into the 1980s, Indian investments abroad rose rapidly, as reflected in the number of registered joint ventures abroad (Figure 2). After 1983, the number stagnated, only to slowly rise again in the early 1990s.

The same pattern, only with more dramatic increases, is found in the amounts of equity investments in operating enterprises abroad (Figure 3). The second wave increase in investments abroad in the 1990s is seen clearly, as is the stagnation in operating investments after the mid-1980s. It is also clear from the figure that – measured by the amount invested abroad – the strongest growth was seen during the early 1980s, probably reflecting the increase in approvals during the late 1970s. During the 1970s and early 1980s, the stock of Indian investments abroad rose to a

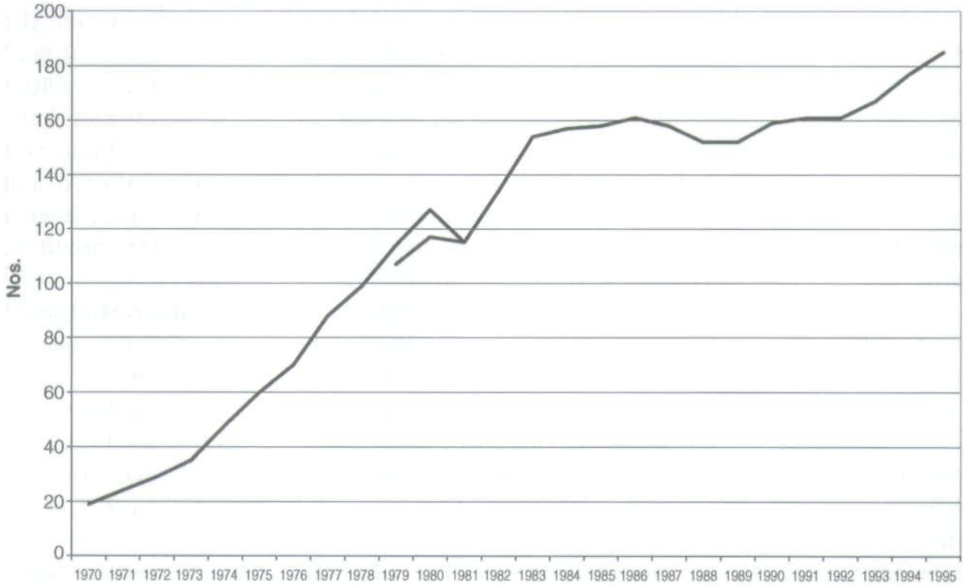

Figure 2. Number of Indian joint ventures in operation abroad, 1970-95. Note: Different sources give slightly different figures for the period 1979-81. *Source*: Various sources all based on original data from IIC

Figure 3. Stock of Indian equity in operating ventures abroad, 1972-95. Note: For the early period, complete figures for operating investments were unavailable to the author. *Source*: Various sources all based on original data from IIC

level of around one billion Rs. This level of investments abroad was maintained during the later part of the 1980s, only to rise dramatically to exceed two billion Rs during the first half of the 1990s.[9]

Table 2 shows the geographical distribution of Indian investments abroad before 1995. In the first phase, Indian investments were concentrated in Africa, especially East Africa, but, during the 1970s, investments increasingly went to Southeast Asia, especially to Malaysia, Indonesia and Thailand, moving beyond countries known to house expatriate Indian communities. During this first wave period, practically all Indian investments abroad went to other developing countries, while investments in developed countries in Europe and the Americas were few and of limited importance. The number of investment projects in developed countries did increase, however, especially due to investments in the USA and the UK. The late 1980s and the early 1990s brought a renewed focus on Africa, part of which was caused by one large project in Senegal. New investments in Kenya, Nigeria and Mauritius were also made. Similarly, new investment projects in West Asia, South Asia as well as in the Commonwealth of Independent States (CIS) also came up. Developments through this period and the changed official attitude towards wholly-owned investment projects abroad brought a dramatic increase in this kind of investments project (Table 3). Investments in wholly-owned subsidiaries had, by the mid-1990s reached a level of 2.5 times that invested in joint ventures, and the overwhelming majority of these subsidiaries were established in the USA, the UK plus Singapore and Hong Kong.

Investments in both the Asian city-states and in the UK have most likely been in regional headquarter facilities, trading and financial companies etc., and not in manufacturing operations, but very little is known about the investments projects as neither company-level nor sector-level data are available for those destinations.

In terms of industrial sectors, Indian joint ventures abroad have been concentrated in manufacturing activities, especially in light engineering, textiles and other traditional industries in which India has been known for possessing domestic capabilities (Table 4). Non-manufacturing activities have increased in importance over the years, especially in numerical terms, and almost all service sectors saw an increase in the number of enterprises abroad during the otherwise stagnating 1980s, most notably among consultancy companies. At the company level, several analyses have pointed to the continued dominance of large Indian companies among those investing abroad. In the early phase, companies from the Birla conglomerate figured prominently, but later many of the other large Indian companies and conglomerates also ventured abroad (Morris, 1990; Ranganathan, 1988).

Investments After 1995

After 1995 and especially after the turn of the century, Indian investments abroad have increased dramatically (Figures 1 and 4). Although there are discrepancies between Ministry of Finance figures summing up investment approvals and the balance of payment data from the RBI, the overall trends are similar, showing a remarkable increase, especially from around the year 2000.[10] The country composition of the recent investment flows can be seen from the data on approved investment flows in Table 5, and the more detailed figures for approved and operating investment projects given in Appendices 1 and 2. These data include all forms of investments abroad – both joint ventures and subsidiaries – and there is a clear pattern of an increasing share of developed country destinations, especially in the USA and the UK. Investments in financial centres like Hong Kong and

Table 2. Geographical distribution of Indian joint ventures abroad (in operation)

	27 March 1973			31 March 1983			31 December 1994		
	No.	Million Rs	%	No.	Million Rs	%	No.	Million Rs	%
1. Southeast and East Asia	11	21.740	30.9	66	390.815	70.1	63	597.820	32.9
Malaysia	8	15.980		27	131.511		21	229.491	
Indonesia				11	121.246		11	140.109	
Thailand	2	4.480		8	95.863		9	148.315	
Singapore	1	1.280		16	37.411		17	61.624	
2. South Asia	3	0.584	0.8	12	8.861	1.6	25	150.171	8.3
Sri Lanka	3	0.584		10	6.011		16	114.740	
Nepal				1	2.013		8	35.007	
3. Africa	15	22.126	31.5	20	129.697	23.3	28	703.482	38.7
Nigeria	2	4.620		7	28.836		14	79.141	
Kenya	5	6.511		8	95.537		9	418.011	
Mauritius	4	2.025		3	2.017		2	26.373	
Uganda	1	2.920		1	2.807		1	7.015	
Senegal							1	142.180	7.8
4. West Asia	2	0.750	1.1	15	12.744	2.3	20	131.591	7.2
United Arab Emirates				9	7.521		8	19.346	
Bahrain				1	0.330		3	79.153	
Saudi Arabia				3	3.948		4	10.531	
Iran	1	0.725					1	14.974	
5. Oceania				2	1.302	0.2	3	3.051	0.2
Fiji				1	1.122		1	1.963	
6. Europe, America, Australia	5	25.151	35.8	26	14.256	2.6	34	191.070	10.5
UK	1	2.100		9	1.459		14	37.605	
USA				11	7.667		10	119.667	
Ireland	1	2.309							
Germany	2	13.242		3	4.083		1	3.000	
7. CIS countries							4	40.680	2.2
Russia							3	12.080	
Turkmenistan							1	28.600	
Total	36	70.351	100.0	141	557.675	100.0	177	1817.865	100.0

Note: Due to rounding, percentages do not add up to 100.
Sources: AIEI (1986), IIC (1995b), Prasad (1976). All figures are from reported IIC data.

Singapore and in tax havens around the world – Mauritius, Virgin Islands, Bermuda, Cayman Islands etc. – have also increased dramatically, but the ultimate destinations and the precise nature of these investments are not known.

Indian investments in CIS countries have mainly been in Russia. The number of investment projects is not large, however, but Indian companies have clearly found new business opportunities all over the region after the demise of the Soviet Union.

Table 3. Indian wholly-owned subsidiaries abroad, 31 December 1994 (in operation)

	No.	Equity (million Rs)	%
UK	16	2981.096	68.0
Singapore	8	799.901	18.2
USA	15	240.740	5.5
Hong Kong	4	137.287	3.1
Zambia	1	98.169	2.2
Malaysia	2	56.245	1.3
Switzerland	3	42.173	1.0
Germany	3	7.753	0.2
Sri Lanka	1	7.365	0.2
Nepal	1	7.152	0.2
United Arab Emirates	1	5.692	0.1
Thailand	1	2.500	0.1
Indonesia	1	0.209	0.0
Total	57	4386.182	100.0

Source: IIC (1995b).

Table 4. Indian joint ventures abroad by field of collaboration (in operation)

	31 March 1982			31 December 1990
	No.	Equity (million Rs)	%	No.
1. Light engineering	30	70.664	15.3	22
2. Textiles and allied products	19	141.845	30.6	16
3. Chemicals and pharmaceuticals	12	20.115	4.3	13
4. Oil seed crushing etc.	9	83.610	18	4
5. Iron and steel products	5	15.477	3.3	4
6. Pulp and paper	3	78.817	17	2
7. Glass and glass products	3	6.061	1.3	3
8. Leather and rubber products	2	1.302	0.3	4
9. Food products	2	0.653	0.2	6
10. Commercial vehicles	1	5.435	1.2	4
11. Cement products	1	13.068	2.8	1
12. Other manufacturing	0	0.000	0	12
Total manufacturing	87	437.047	94.3	91
13. Trading and marketing	17	5.390	1.2	19
14. Hotels and restaurants	14	3.803	0.8	19
15. Engg. Contracts and construction	7	7.246	1.5	10
16. Consultancy	3	0.350	0.1	17
17. Other non-manufacturing	6	9.849	2.1	3
Total non-manufacturing	47	26.638	5.7	68
Total	134	463.685	100	159

Source: IIC (1983); NABHI (1993).

The largest investment by far has been made in an oil field project in Sakhalin by the overseas investment arm of the large state-owned Oil and Natural Gas Corporation, but smaller investments in manufacturing facilities are also found. Indian

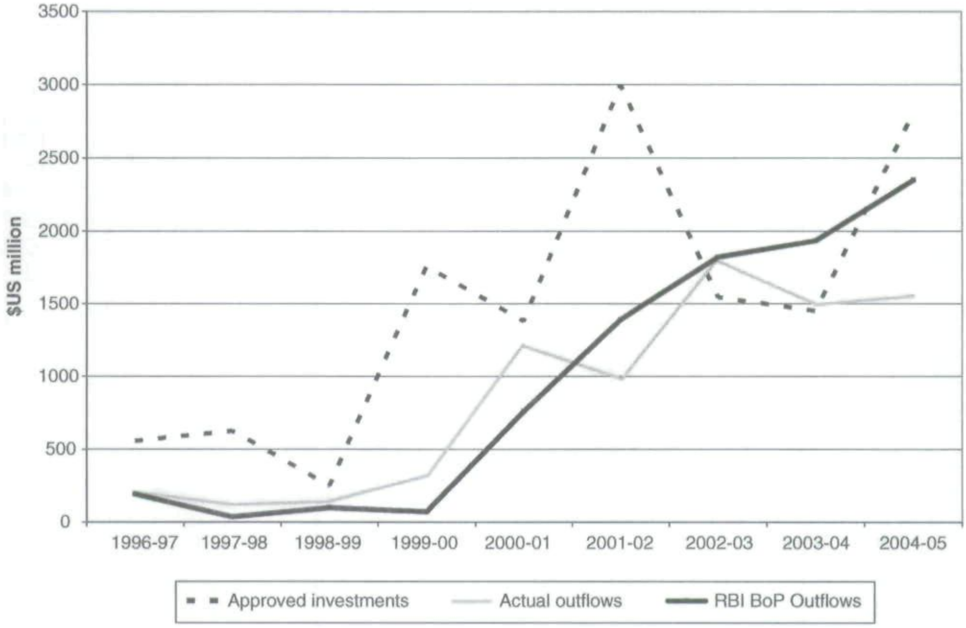

Figure 4. Annual outflows of foreign investments, 1996-97 to 2004-05. *Source*: Data available from the websites of the Ministry of Finance (http://finmin.nic.in, downloaded 10 February 2006) and the Reserve Bank of India (http://rbi.gov.in, downloaded 20 June 2006)

Table 5. Approvals issued by country for foreign direct investments abroad, April 1995-March 2005

	No.	Amount ($US million)
USA	2268	2159
Russia	32	1763
Mauritius	388	1038
Sudan	5	964
British Virgin Islands	87	924
UK	633	777
Bermuda	34	689
Hong Kong	126	544

Note: Only the major destinations are shown.
Source: RBI (2005a).

pharmaceutical companies have thus made investments in all of the Central Asian republics (Pradhan, 2006).

Evidence on individual investment cases reported in the media suggests that a large share of the investments in developed countries have taken the form of acquisitions of existing local companies. Indian investments in London – mostly in headquarters, sales and marketing, and many for software companies – have recently made India the second largest investor in the city (Greater London Authority, 2005). In contrast, developing countries – although still receiving a fair share of Indian investments – have seen a decline in their importance as destinations for Indian investments. As the data also indicate, in absolute terms, investments in many developing countries have increased substantially, however. Most of these investments have probably been in greenfield projects, representing new additions to existing economic activities. Another remarkable feature is the breadth of the investment activities. During the last ten years, Indian companies have received government approvals to invest in 100 different countries (Appendix 1) and, as of 2004, Indian companies were running businesses in 90 different countries all over the world (Appendix 2). These numbers illustrate nicely the global nature of the second wave of Indian investments. This global orientation of the Indian companies differs significantly from the orientation towards Asia and Africa during the first wave of investments and it indicates that at least some of the Indian companies have acquired a global outlook and sufficient courage and competence to enter successfully the demanding but also lucrative markets in the developed world.

Table 6 shows that most of the recent Indian investment projects abroad are still found in the manufacturing sector, although non-financial services make up an increasing share. While full company-wise details of investments abroad are unavailable, information on individual investments suggests that many of India's successful software companies have invested extensively abroad. Similarly, it is known, that Indian pharmaceutical companies have invested heavily abroad, especially through acquisition of existing companies in Europe and the USA. Companies engaged in more traditional industrial sectors, such as auto parts, textiles, chemicals and engineering, have also ventured abroad. The large, private Indian conglomerates, in particular, have expanded their overseas operations, including the huge Tata industrial empire. Tata Motors thus bought the truck division of bankrupt South Korean Daewoo in 2003, Tata Tea acquired Tetley Tea in 2000, Tata Steel has acquired steel mills abroad, including in Europe, and Tata Consultancy Services has established affiliates in several countries, including some developing countries.[11] While most foreign investors have been private companies, large government-owned oil and natural gas companies have ventured abroad in recent years, in Central Asian republics, in Africa (e.g. Sudan, Nigeria) and most recently in Brazil in a search for new energy sources similar to the one conducted by Chinese companies. Indian and Chinese energy companies have also collaborated in several ventures.

Table 6. India's direct investment abroad by sectors, 2000/01 to 2004/05

	$US million	%
Financial services	21.9	0.3
Manufacturing	3918.8	60.0
Non-financial services	1910.1	29.3
Trading	501.7	7.7
Others	177.4	2.7
Total	6529.9	100.0

Source: Reserve Bank of India (2005a).

Explaining Outward Investment

The first wave expansion of Indian capital abroad attracted considerable attention from researchers, leading to several attempts to explore the dynamics behind the phenomenon. One of the very first surveys of Indian investments abroad noticed that the projects not only represented old, established industries but also new and, by the standards of the time, more technologically sophisticated industries that would be appropriate also in developed countries (Bhat, 1973). The ability to master those industries came from India's previous experience in adapting and re-orientating modern, imported technology and investments abroad was thus seen as broadly reflecting domestic developments.[12] Two other early assessments pointed to the "mature" technologies and "appropriate" (small) scales of production of Indian enterprises, which supposedly gave them some advantages compared to transnational companies from developed countries (Balakrishnan, 1976; Prasad, 1976). The assessments also saw government support and political considerations as being of some importance, especially for the joint ventures located in Africa. The Indian government's domestic policies were also regarded as providing an important "push," especially for those large companies whose domestic expansion supposedly was restricted by the government's new anti-monopoly policy (Balakrishnan, 1976: M48).[13] A brief analysis of a small sample of the early Indian investors found that a major motive for investing abroad was to defend (or expand) the market for their export products and expectations of future economic growth in the host market therefore had played an important role. It also found that many companies pointed to the similarities between conditions in the Indian market and in the host countries (Singh, 1977).[14]

In a series of studies, Sanjaya Lall investigated Indian investments abroad *ca.* 1980, viewing them both as a separate process of industrial expansion abroad (Lall, 1982a, 1982b, 1983) and as an element in the broader process of export of technology from India (Lall, 1982c, 1984).[15] The general result that emerged from his research was that the investments constituted a highly dynamic and complex phenomenon which was difficult to explain through the use of traditional explanations taken from the theoretical literature on foreign direct investments and transnational corporations from developed countries.[16] One common element, however, was that Indian companies were *not* active investors in areas characterised by "rapid innovation, high requirements of research and development, or powerful product differentiation" (Lall, 1983: 67). It was noted also that a very high proportion of investors were from that section of large Indian companies which fell under the anti-monopoly legislation, as mentioned above, but the companies who decided to invest abroad did not do so out of concern for falling profits at home. Rather, it seemed that many investors engaged abroad as part of a strategic consideration about the future evolution of their company and as a natural step forward (Lall, 1983: 69). Overall, Lall (1982a) found that Indian investments abroad were more diversified in terms of geographical destinations, industrial sectors and technological capabilities than investors from any other developing nation at the time. He also noted the influence of ethnic connections in a few cases where Indian companies collaborated with local partners of Indian origin (Lall, 1983: 66).

The dominance of large companies among those investing abroad was also noted by Encarnation (1982: 43), who reported that large companies frequently mentioned the desire to avoid the restrictions in the anti-monopoly legislation on their domestic activities as an important motive for venturing abroad.[17] In addition, he noted that only very few foreign companies with subsidiaries in India had used their local affiliates to engage in outward investments. Most Indian companies investing abroad also had a past history of technological collaboration agreements with foreign companies and their outward expansion could thus be interpreted as a result of their success in absorbing – and perhaps adapting – imported technologies. Another analysis from the same period indicated that some of the Indian investment projects located in developing countries had been implemented in partnership with multinationals from developed countries, with the Indian company providing local expertise and adapted technologies (Aggarwal and Weekly, 1982).

An interview-based survey carried out in 1983 of 63 cases of Indian companies investing abroad found that the prospects of growing markets in the host countries and a potential for increased exports constituted the dominant investment motives for the companies (Agarwal, 1985).[18] Some companies also mentioned limitations on the domestic market within India as a "push" factor, but it was rarely mentioned as a decisive or sole factor behind the investment decision. There were also some indications that overseas ventures had proven to be more profitable than the companies' similar domestic activities. One intriguing motive that came up in the investigation was the prospect of gaining easier (but probably illegal) access to foreign currency through the establishment of a joint venture abroad (Agarwal, 1985: 22). Another study based on interviews with 17 Indian parent companies conducted around the same time gave a very different – in some respects opposite – picture of the motives for investing abroad (Lall, 1986). According to this smaller study, domestic constraints in the form of high cost of inputs, sluggish growth of the Indian market and restrictions imposed by the Indian government formed the main motives for venturing abroad (Lall, 1986: 21). Only a few companies in this study mentioned the market opportunities in host countries. These very strong differences in the results of interview studies carried out at approximately the same time cast considerable doubt about the results of interview-based investigations as research approaches to uncovering the "true motives" behind investments decisions.[19] The same study did, however, provide some interesting observations on the nature of the comparative advantages of the companies as they were assessed by company managers. One observation was that the availability of competent Indian managers experienced in operating in a developing country context was a crucial asset for companies operating abroad. Another was that many companies felt handicapped by the Indian government's restrictions on the transfer of liquid capital overseas, and a third observation that partly contradicts results from other studies was that the supposed advantages from adapted technologies embodied in Indian machinery were negligible (Lall, 1986: 25-7). The same study, however, also used statistical techniques to determine the specific characteristics of 24 Indian companies who had invested abroad compared to those 162 companies in the sample who had not. The data covered the 1977/78 and 1978/79 period. The results from the statistical exercise gave the strongest support to the notion that the larger the company, the more likely is its propensity to invest abroad, and this result furthermore supports the notion that financial constraints have played a more important role for the limited size of the investment projects abroad than have the application of adapted technology (Lall, 1986: 39-45). A supplementary analysis of the industries from which foreign investments originated provided some support to the theory that slow domestic growth might have provided a motive for outward investments (Lall, 1986: 74).

While most of the early studies of Indian investments abroad were concerned with determining the specific nature of the investments at a particular point in time, Kumar (1995) has, in a more recent analysis of the developments through three decades of investment activity, found that the overall pattern of Indian investments abroad broadly conforms to Dunning's theory of the investment development path.[20] According to this theory, outward investments (as well as inward investments) reflect the structural development of the home economy in comparison with foreign destinations according to the changing ownership (O) and locational (L) and internalisation (I) advantages (Dunning, 1981). In an early stage of economic development, domestic firms do not possess any advantages that might enable outward investments, but if the country enters a higher stage of development, outward investments become possible and could take place in neighbouring countries or in countries at a lower level of development, which offer attractive locational advantages. If more advanced levels of development are reached by the home economy, outward investments will increase; local companies will acquire more ownership advantages and possibly also internalisation advantages and may find it profitable to invest in more advanced host countries.[21] Indian investments that started with small-scale investments in Africa, moved on to investments in the more developed Southeast Asian region, and in the 1990s investments have grown strongly in the most developed countries, thus fitting well into this type of explanation. Parallel to the changes in investment destinations, the sectoral spread of investments widened to include services along with the traditional industrial ventures.[22] According to Kumar (1995), foreign investment by Indian companies thus reflects the gradual progress of the Indian home economy relative to those economies in which Indian companies invested, in particular with respect to the accumulation of technological capabilities.

The most extensive recent statistical analysis of a large section of Indian manufacturing enterprises, including more than 2000 overseas investment projects during the 1990s, supplements Kumar's analysis by pointing to the possession of a bundle of "intangible assets" by firms investing abroad (Pradhan, 2004). Included among the assets are firm age – but only in some industries – size, technological efforts, export intensity and, in particular, managerial skills. The study also found a significant impact from the new liberalisation policies in India on the foreign investment activities in most industries.

From this brief survey of existing attempts to explain Indian outward investments – and especially the first wave of investments – no single explanation has emerged. Different studies from different times have come up with different explanatory factors. At the level of individual investment projects, convincing reasons can be found easily for the outward expansion. Indian companies have invested abroad both to seek market access and opportunities for expansion, and to secure access to a variety of different resources, including raw materials, energy sources, technological capabilities etc. Out of this multitude of individual company-level motivations it is very hard to come up with generalised explanations at the macro-level, however. One puzzling observation is that some of the reasons related to domestic push factors frequently mentioned in the studies of the first wave of investments – slow domestic market growth and government restrictions in particular – clearly do not apply to the 1990s, when the second wave of investments abroad started. One could reasonably have expected Indian companies to concentrate their activities in their own growing and now much less regulated domestic market rather than venturing abroad to faraway shores characterised by growth rates lower than those presently applying in India.

The most convincing set of explanatory factors for the trajectory of Indian investments abroad seems to follow the theory of the investment development path which sees the investments as a reflection of the gradual progress of the Indian economy.[23] This theory can explain both the increasingly advanced sectors invested in and the new destinations for the outward investments flows. It cannot, however, explain the wave-like pattern of investment flows that comes out very clearly from the data reproduced earlier. To explain this pattern, I suggest that changes in the Indian government's policies towards investments abroad have played a major role. As mentioned earlier, the Indian government has, in its general policy formulations, been concerned all along with the preservation of its precious foreign currency reserves. This preoccupation with preservation of foreign reserves has probably influenced the actual approval procedures and, for that reason, it is to be expected that outward investment flows will roughly fluctuate with the level of foreign currency reserves. Figure 5 shows the level of currency reserves since 1970 and combines this with the level of short-term debt to give an indication of India's overall vulnerability to a potential currency crisis, the avoidance of which is a major reason to hold foreign currency reserves. The striking similarity between the trajectory of the currency/vulnerability curve and the earlier figures depicting the pattern of

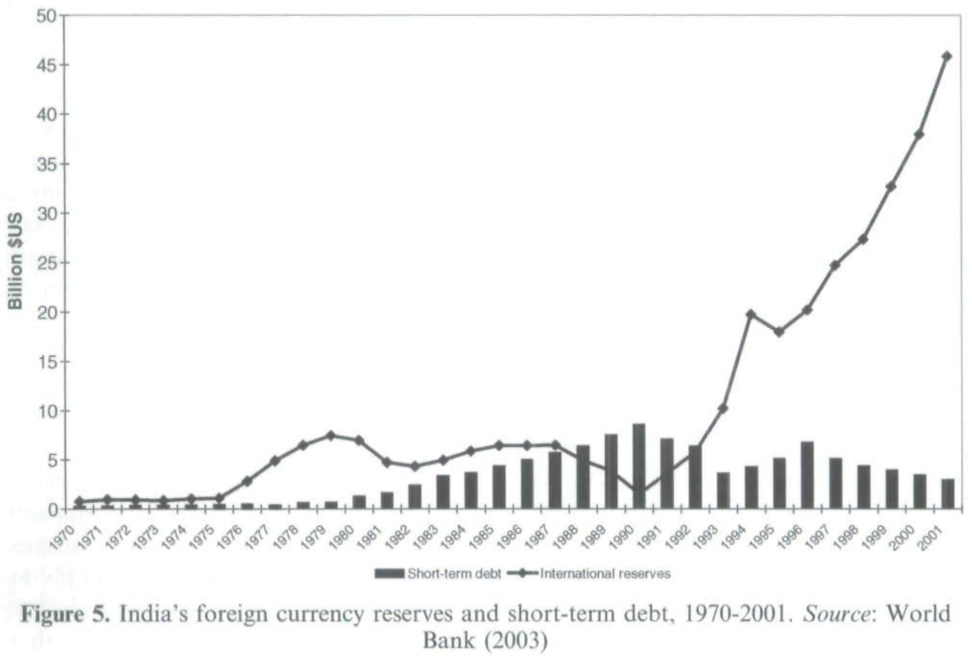

Figure 5. India's foreign currency reserves and short-term debt, 1970-2001. *Source*: World Bank (2003)

outward investments strongly suggest that it has been the initial caution by the Indian government in approving foreign investments and the subsequent liberalisation in the 1990s that has determined the overall level of investments abroad. The currency reserves are today of such magnitude that Indian companies can invest abroad freely – and they have been doing so in great numbers creating a second wave. The first wave of investments abroad was made possible in a similar way by the upsurge in currency reserves in the mid-1970s, and were dampened due to the rise in short-term debt and the decline and stagnation in the level of reserves, culminating in the economic crisis of 1990-91. It should be noted that the focus on cautious government policies towards approving outward investments is based upon the assumption that Indian companies have, since the early 1970s, been both willing to, capable of and interested in investing in projects abroad.[24] The Indian private capitalist class has thus over a long period demonstrated a degree of maturity that many observers focusing mostly on India's immense poverty and its long periods of low growth rates have failed to notice. India's largely home-grown capitalism today seems ready to expand abroad.

Research Problems

This article has so far only touched upon questions related to the determinants of Indian investments abroad and only incompletely so. Many questions remain to be answered before we truly understand the dynamics behind the external expansion of Indian capital. One important question concerns the precise role of the whole range of supportive government activities, both those closely linked to the expansion abroad (credit facilities, etc.) but also including the broader changes in the orientation of India's foreign policy after the demise of the Soviet Union. The influence from the increasing globalisation of the world economy is obviously important, too. A second set of questions concerns the developmental impact, especially in developing countries, of the outward investments (including the possible impacts within India). There are only very few studies discussing the impact of the first wave of Indian investments, while none so far that have studied the most recent and much stronger wave of investments. A recent World Bank study summed up the situation for the larger phenomenon of South-South relations: "The potential benefits of greater South-South integration are supported by anecdotes, a few empirical studies, and deduction and inference from the history of North-South capital flows, rather than by a large body of systematic research" (World Bank, 2006, Vol. I: 127).

One possible line of argument would emphasise the nature of the technology, the managerial style, the scale of production and so on that the Indian companies bring when they invest. It can be argued that Indian companies because of their domestic experience have experience in operating in small markets in developing countries and have considerable experience using low technology production methods. This kind of technology can be assumed to have more development-friendly local impacts through various spin-offs to the local economy, including employment opportunities and a larger impact on local technological learning processes. In addition, simply by constituting an alternative to the large, Northern transnational corporations, the Indian companies may give the host country more room to manoeuvre and thus reduce its overall level of economic dependency. A second, but opposite, line of argument would be that precisely because of the nature of Indian companies, their investments abroad might very well pre-empt whatever possibilities exist for local companies to upgrade their own production capabilities, thus contributing to the suppression of local economic progress that forms part of the general impact of economic globalisation on poor countries. It could also be investigated whether Indian companies still represent low- to medium-end technology activities which present only limited future growth prospects. Their broader implications for local employment and social progress could also be questioned, if only through pointing to the glaring lack of broader developmental impacts in their Indian market.

A final observation relevant to the discussion of the developmental effects of the Indian investment projects in other developing countries is that many of the first wave investment projects were related closely to either earlier export and import activities or other kinds of international engagement by Indian companies in the form of construction contracts, project export, consultancy contracts and foreign aid schemes (Pedersen, 1993). If this is true also for the new second wave investments, it will be necessary to take into consideration the whole package of activities when assessing the developmental implications.

Notes

1 The first academic attention to the new foreign investments by firms from developing countries can be traced to Lecraw (1977), several contributions in Agmon and Kindleberger (1977), to an aptly titled article by Heenan and Keegan (1979) in the Harvard Business Review, "The rise of third world multinationals," and to O'Brien (1980). The first substantial overviews came in Kumar and McLeod (1981) and Wells (1983).

2 One can get a good overview of the international, political struggle of developing countries through their official documents and declarations (see Ministry of External Affairs, 1983). The theoretical debate is represented in the contributions in Khan (1986). The establishment of *The South Centre* in Geneva was an outcome of this process (see http://www.southcentre.org).

3 This comes out clearly in various documents published by the Indian Investment Centre (see IIC, 1981b).

4 As a consequence of this simplification, the Indian Investment Centre was later abolished.

5 UNCTAD (2004) provides a list of 46 treaties concluded before 1 January 2003. This list may be compared to the much shorter list of 17 treaties in the early 1980s cited in Agrawal (1984: 30) and the somewhat longer list of 37 from 1992 in NABHI (1993: 178).

6 The maximum for annual approvals during the first wave had been in 1977, when 49 projects were approved.

7 Sources differ on the date of the investment. Some say it was approved in 1955 (Morris, 1987), others in 1956 (Lall, 1986) or in 1959 (Agrawal, 1984). The mill started operating in 1960.

8 For example, Ranganathan (1988: 37–9) provides a list of 56 foreign investment projects not listed by the IIC in 1987.

9 The devaluation of the Rupee in July 1991 has probably inflated investment figures after this date, but its overall impact on investment data is difficult to determine. The Rupee went from 21.0 to 25.5 per $US, a devaluation of more than 20% and it continued to decline slowly in the following years.

10 Overseas investments, especially the recent acquisitions of large foreign companies, are financed through a variety of sources and they are not all captured in the balance of payment statistics. These statistics thus understate the true magnitude of foreign investments.

11 Some of these examples are mentioned in UNCTAD (2004). Others are from the daily press, mostly India's premier financial daily, *The Economic Times* (online version).

[12] The assessment was based on investments abroad before July 1971. It is of interest to note that at the time Southeast Asia was regarded as a promising new area for investments abroad. The subsequent increase in investments happened in precisely that region.

[13] The early studies mentioned here were largely descriptive, and did not make any attempt to assess the general validity of the potential causes behind the investments. They also mentioned many more specific causes associated with individual investment projects.

[14] The study was based upon questionnaire responses from 12 companies and interviews with six companies in 1973.

[15] The other forms of technology exports were: industrial project export, civil construction contracts, consultancy exports and licensing of technology.

[16] This comes out most clearly in his detailed analysis of a sample of 17 cases of investment projects in the manufacturing sector, supplemented by extensive interviews with company managers (Lall, 1983). While outwards investments could be described usefully using Dunning's (1981) descriptive parameters of Ownership, Locational and Internalisation advantages, this did not sum up to a coherent explanation.

[17] Companies falling under the anti-monopoly law were very active investing abroad at the time of the passing of the law, but subsequently their share of investment projects fell (see Encarnation, 1982: 45, table 2).

[18] The investments of the companies included in the survey constituted four-fifths of the total foreign direct investment in manufacturing at the time.

[19] Several explanations are possible for the different outcomes of the two studies. One is that answers to interview questions are influenced strongly by the interviewer in question. Another is that respondents tend to answer according to the present situation and the present problems of the company rather than according to a reliable assessment of what was the situation at the time of the investment decision. From my own experience with interviews of officials in both the private and the public sectors, I tend to believe that the last explanation comes closest to the truth.

[20] At a more general level the theory has been applied to explain the emergence of Third World multinationals (see Dunning et al., 1998).

[21] Parallel with this, inwards investments also change and the country may end up as a net exporter of FDI.

[22] Kumar (1995) used detailed figures for ongoing investments projects as well as projects under implementation, but the overall destination- and industry-wide pattern is similar to the one given above on the basis of implemented projects alone.

[23] It follows from this that the general economic policies pursued by the Indian government have indirectly, but possibly very strongly, impacted upon the outward investment flows.

[24] These capabilities of the Indian companies are partly a result of supportive state actions (see Pedersen, 1993).

References

Agarwal, J.P. (1985) *Pros and Cons of Third World Multinationals. A Case Study of India*, Tübingen: J.C.B. Mohr.

Aggarwal, R. and J.K. Weekly (1982) "Foreign operations of Third World Multinationals: A Literature Review and Analysis of Indian Companies," *Journal of Developing Areas*, 17, 1, pp. 13-29.

Agmon, T. and C.P. Kindleberger (eds) (1977) *Multinationals from Small Countries*, Cambridge: The MIT Press.

Agrawal, R.G. (1984) *Joint Ventures Abroad. Indian Experience*, New Delhi: Ministry of Information and Broadcasting.

Association of Indian Engineering Industry [AIEI] (1986) *Handbook of Statistics 1985*, New Delhi: AIEI.

Balakrishnan, K. (1976) "Indian Joint Ventures Abroad. Geographic and Industry Patterns," *Economic and Political Weekly*, 11, 22, pp. M3-M48.

Bhat, V.M. (1973) "Indian Investment and Collaboration in Foreign Countries," in C. N. Vakil (ed.), *Industrial Development of India. Policy and Problems*, New Delhi: Orient Longman, pp. 136-47.

Dunning, J.H. (1981) "Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach," *Weltwirtschaftliches Archiv*, 117, 1, pp. 30-64.

Dunning, J.H., R. van Hoesel and R. Narula (1998) "Third World Multinationals Revisited: New Developments and Theoretical Implications," in J. H. Dunning (ed.), *Globalization, Trade and Foreign Direct Investment*, Amsterdam: Elsevier, pp. 255-86.

Dutt, S. (1984) *India and the Third World. Altruism or Hegemony?*, London: Zed Press.

Encarnation, D. (1982) "The political economy of Indian joint industrial ventures abroad," *International Organization,* 36, 1, pp. 31-59.

Government of India (2005) *Handbook of Industrial Policy and Statistics 2003-2005*, New Delhi: Department of Industrial Policy & Promotion.

Greater London Authority (2005) *From the Ganges to the Thames. An analysis of Indian FDI into London*, London: Mayor of London.

Heenan, D.A. and W.J. Keegan (1979) "The rise of third world multinationals," *Harvard Business Review*, Jan.-Feb., pp. 101-109.

Indian Investment Centre (1981a) *Indian Joint Ventures Abroad. An Appraisal*, New Delhi: IIC.

Indian Investment Centre (1981b) *Indian Joint Ventures Abroad. Government Policies*, New Delhi: IIC.

Indian Investment Centre (1983) *Indian Joint Ventures Abroad. An Appraisal*, New Delhi: IIC.

Indian Investment Centre (1995a) *Guidelines for Indian Direct Investment in Joint Ventures and Wholly Owned Subsidiaries Abroad*, New Delhi: IIC.

Indian Investment Centre (1995b) *Summary of Indian Joint Ventures/Wholly Owned Subsidiaries*, 31 December 1994, New Delhi: IIC (stencil, printed 14 August 1995).

Institute of Company Secretaries of India (1983) *Joint Ventures Abroad*, New Delhi: ICSI.

Khan, K.M. (ed.) (1986) *Multinationals of the South. New Actors in the International Economy*, London: Frances Pinter.

Kumar, K. and M.G. McLeod (eds) (1981) *Multinationals from Developing Countries*, Lexington: D.C. Heath.

Kumar, N. (1995) "Industrialisation, Liberalisation and Two Way Flows of Foreign Direct Investments. Case of India," *Economic and Political Weekly*, 30, 50, pp. 3228-37.

Lall, R. (1986) *Multinationals from the Third World. Indian Firms Investing Abroad*, New Delhi: Oxford University Press.

Lall, S. (1982a) "The Emergence of Third World Multinationals: Indian Joint Ventures Overseas," *World Development,* 10, 2, pp. 127-46.

Lall, S. (1982b) "The Export of Capital from Developing Countries: the Indian Experience," in J. Black and J. H. Dunning (eds), *International Capital Movements*, London: Macmillan, pp. 195-225.

Lall, S. (1982c) *Developing Countries as Exporters of Technology. A First Look at the Indian Experience*, London: Macmillan.

Lall, S. (1983) "Multinationals from India," in S. Lall (ed.), *The New Multinationals. The Spread of Third World Enterprises*, Chichester: John Wiley & Sons, pp. 21-87.

Lall, S. (1984) "India," *World Development,* 12, 5/6, pp. 535-65.

Lecraw, D. (1977) "Direct Investment by Firms from Less Developed Countries," *Oxford Economic Papers,* 29, 3, pp. 442-57.

Ministry of External Affairs (1983) *ECDC Handbook. Documents of the Movement of Non-aligned countries and the Group of 77*, New Delhi: Ministry of External Affairs.

Morris, S. (1987) "Trends in Foreign Direct Investment from India (1950-1982)," *Economic and Political Weekly,* 22, 45, pp. 1909-18 (part I); 22, 46, pp. 1963-9 (part II).

Morris, S. (1990) "Foreign Direct Investment from India. Ownership and Control of 'Joint Ventures' Abroad," *Economic and Political Weekly,* 25, 7-8, pp. M23-M34.

NABHI (1993) *NABHI's Indian Joint Ventures Abroad. Policy, Procedures & Incentives*, New Delhi: NABHI Publications.

O'Brien, P. (1980) "The New Multinationals. Developing-country firms in international markets," *Futures,* 12, 4, pp. 303-16.

Pedersen, J.D. (1993) "The Determinants Behind India's South-Bound Economic Expansion," *Journal of Contemporary Asia,* 23, 3, pp. 354-81.

Pradhan, J.P. (2004) "The Determinants of Outward Foreign Direct Investments: A Firm-level Analysis of Indian Manufacturing," *Oxford Development Studies,* 32, 4, pp. 619-39.

Pradhan, J.P. (2006) *Global Competitiveness of Indian Pharmaceutical Industry: Trends and Strategies*, New Delhi: ISID, Working Paper no. 2006/05.

Prasad, A.J. (1976) "Export of Technology from India," PhD dissertation, Columbia University.

Ranganathan, K.V.K. (1988) *Indian Joint Ventures Abroad*, New Delhi: Indian Institute of Public Administration, Corporate Studies Group Working Papers.

Reserve Bank of India (2005a) *Annual Report 2004-05*, Mumbai: RBI.

Reserve Bank of India (2005b) *Master Circular – Direct Investment by Residents in Joint Venture (JV)/ Wholly Owned Subsidiary (WOS) Abroad*, 1 July 2005. Mumbai: RBI.

Singh, D.R. (1977) "Capital Budgeting and Indian Investment in Foreign Countries," *Management International Review,* 17, 1, pp. 101-10.
Thurbon, E. and L. Weiss (2006) "Investing in Openness: the Evolution of FDI Strategy in South Korea and Taiwan," *New Political Economy,* 11, 1, pp. 1-22.
UNCTAD (2006) *FDI online*, http://stats.unctad.org/fdi/ (downloaded 21 April 2006).
UNCTAD (2004) *India's outward FDI. A giant awakening?*, Geneva: UNCTAD/DITE/IIAB/2004/1.
Wells, L.T. (1983) *Third World Multinationals. The Rise of Foreign Investments from Developing Countries*, Cambridge: The MIT Press.
World Bank (2003) *Global Development Finance 2003* (CD-ROM), Washington D.C.: World Bank.
World Bank (2006) *Global Development Finance 2006, Vol. I*, Washington D.C.: World Bank.

Appendix 1. Geographical distribution of approved foreign direct investments, April 1996 to August 2005

Region	$US million	%
1. Southeast and East Asia, Pacific	1710.659	12.2
Hong Kong	571.928	
Singapore	474.120	
Vietnam	228.945	
China	153.291	
Indonesia	121.146	
North Korea	51.510	
Malaysia	46.812	
Thailand	43.857	
Philippines	8.558	
Japan	6.150	
Vanuatu	2.302	
South Korea	2.000	
Cambodia	0.040	
2. South Asia	265.154	1.9
Sri Lanka	124.987	
Nepal	82.341	
Bangladesh	21.946	
Maldives	21.000	
Myanmar	12.380	
Pakistan	2.500	
3. Africa	2337.468	16.6
Mauritius	1132.560	
Sudan	1006.706	
Morocco	32.490	
South Africa	31.879	
Libya	30.280	
Senegal	23.240	
Nigeria	21.399	
Kenya	15.400	
Ivory Coast	14.102	
Mozambique	10.065	
Tanzania	4.452	
Botswana	3.537	
Ethiopia	3.057	
Uganda	2.640	
Zambia	2.455	

(continued)

Appendix 1. (*Continued*)

Region	$US million	%
Zimbabwe	1.335	
Algeria	0.790	
Ghana	0.530	
Liberia	0.280	
Zanzibar	0.090	
Namibia	0.060	
Burkina Faso	0.050	
Madagascar	0.030	
Cameroun	0.020	
Sierra Leone	0.011	
Niger	0.010	
4. West Asia	653.743	4.6
United Arab Emirates	258.058	
Oman	213.440	
Iran	103.602	
Saudi Arabia	22.200	
Kuwait	13.663	
Bahrain	12.570	
Egypt	11.670	
Syria	9.450	
Iraq	5.000	
Israel	3.560	
Qatar	0.320	
Turkey	0.180	
Jordan	0.030	
5. Latin America and Caribbean	1733.499	12.3
British Virgin Islands	930.839	
Bermuda	627.900	
Cayman Islands	96.520	
Brazil	49.250	
Columbia	16.230	
Uruguay	6.030	
Trinidad & Tobago	2.690	
Mexico	1.860	
Panama	0.670	
Belize	0.360	
Argentina	0.300	
Honduras	0.100	
St. Vincent	0.050	
Bahamas	0.030	
6. Europe, North America, Australia/New Zealand	4360.332	31.0
USA	2320.799	
UK	775.577	
Australia	382.557	
Netherlands	359.227	
France	114.099	
Malta	96.350	
Austria	77.750	
Germany	52.195	
Ireland	52.042	

(*continued*)

Appendix 1. (*Continued*)

Region	$US million	%
Switzerland	43.242	
Luxembourg	18.250	
Channel Islands	17.740	
Canada	10.628	
Denmark	9.305	
Sweden	7.310	
Hungary	7.290	
Cyprus	6.281	
Portugal	3.010	
Finland	2.430	
Poland	1.583	
Spain	0.914	
New Zealand	0.802	
Czech Republic	0.781	
Romania	0.100	
Greece	0.050	
Liechtenstein	0.010	
Norway	0.010	
7. CIS countries	3011.013	21.4
Russia	2827.498	
Kazakhstan	131.410	
Uzbekistan	27.654	
Kyrgyzstan	12.080	
Moldova	5.250	
Ukraine	4.660	
Azerbaijan	2.060	
Tajikistan	0.401	
Total	14071.868	100.0

Source: Data available at the Ministry of Finance website (http://finmin.nic.in, downloaded 10 February 2006).

Appendix 2. Geographical distribution of joint ventures (JV's) and wholly-owned subsidiaries (WOS) in operation abroad, 31 March 2004 (regions and selected countries)

Region/selected country	WOS		JV's		Total	
Europe, US/Canada, Australia/ New Zealand	617		252		869	
USA		346		116		462
UK		139		62		201
Germany		38		16		54
Australia		23		12		35
Netherlands		20		5		25
West Asia	39		90		129	
UAE		35		57		92
Africa	28		44		72	
Nigeria		5		15		20
South Africa		5		4		9
South East and East Asia	174		176		350	
Singapore		106		50		156
Hong Kong		31		19		50
Malaysia		12		41		53
China		10		15		25
South Asia	54		86		140	
Sri Lanka		35		42		77
Nepal		13		25		38
CIS	15		24		39	
Russia		10		10		20
Latin America	10		8		18	
Brazil		5		6		11
Tax Havens	106		34		140	
Mauritius		76		21		97
British Virgin Islands		16		2		18
Total	1043		714		1757	
(Number of countries)	(64)		(77)		(90)	

Source: Government of India (2005).