

# Indian outward FDI: a review of recent developments

Jaya Prakash Pradhan\*

This paper reviews the recent developments of Indian outward foreign direct investment (OFDI), which has been expanding rapidly, against the backdrop of liberalization and openness policies that have been instituted since the 1990s. The Indian OFDI landscape is changing with the participation of increasing numbers of Indian firms from a wide range of industries, the proactive role of State-owned enterprises in seeking overseas energy resources, and the growing distribution of investments, which are now geographically well spread across developed and developing regions. Indian firms are turning into global players with a global market focus and are undertaking overseas investments for international production, acquisition of foreign-created assets and foreign R&D activities.

## 1. Introduction

A few decades back, Indian industries and firms were taken to be inward looking, seeking protection from foreign direct investment (FDI) and imports. They were highly dependent upon domestic markets and operated with a production base marked by inadequate scale and over diversification, insufficient technological capabilities, poor product quality and low productivity growth. This behaviour of Indian firms was perfectly in tune with the inward-looking policy and controlled industrial productive system that the country adopted between the 1960s and the 1980s.

The period since the 1990s saw India moving away from the low-growth phase during the 1960s–1980s to a high-growth phase, significantly facilitated by the adoption of liberal and open policy measures with respect to the private sector, FDI, trade, technology and competition. India's efforts to steadily integrate her economy with the dynamics and networks of global markets have been complemented by cross-country liberalization of economic policies at the regional and global level, offering easier access to regional and global market opportunities. On the one hand, rapidly expanding FDI inflows and imports have intensified competition in the domestic market, challenging Indian firms, which were thus forced to look for foreign markets

---

\* Jaya Prakash Pradhan is Associate Professor at the Centre for Studies in Economics and Planning at the Central University of Gujarat in Gandhinagar. E-mail: pradhanjayaprakash@gmail.com.

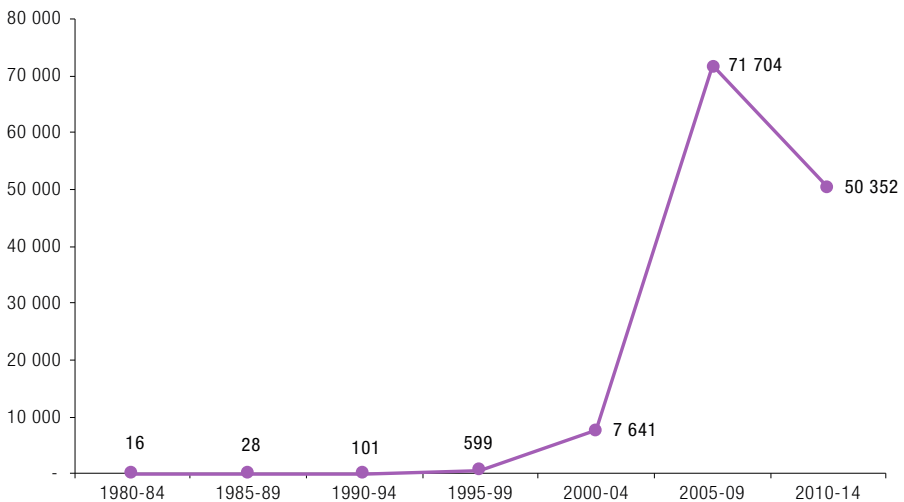
The author gratefully acknowledges helpful comments and suggestions provided by Shin Ohinata on an earlier version of the paper.

with ever-increasing significance for growth. On the other hand, multilateral, bilateral and unilateral policy liberalization by other countries involving trade, investments and industries has made overseas markets with attractive business opportunities more accessible.

It comes as no surprise that Indian firms, while adjusting to the increasingly open and competitive business environment initiated in the 1990s, have been aggressively pursuing a strategy of outward FDI (OFDI) as a means of survival and competitiveness in global markets. The last two decades have witnessed a dramatic rise in cross-border investment activities by Indian enterprises from a broad spectrum of industries (Pradhan, 2008a; Sauvant et al., 2010). The low volumes of Indian OFDI flows in the 1980s (\$44 million) had increased 16-fold to \$700 million by the 1990s (figure 1 and table 1). Between the 1990s and 2000s, it increased more than 113-fold, reaching \$79 billion in the 2000s. This dramatic expansion is reflected in the relative size of overseas investments by India with respect to her inward FDI flows, gross fixed capital formation (GFCF) and gross domestic product (GDP). The OFDI stock was equivalent to 51 per cent of inward FDI stock and 6.4 per cent of GDP in 2014, and 17 per cent of GFCF in 2010. The number of Indian firms undertaking outward investment stood at 7,793 in 2014 as compared with just 60 in the early 1980s.

The analysis of the evolution of Indian OFDI during 1975–2001 reveals that Indian firms that invested overseas before the 1990s consisted mostly of a small number

**Figure 1. Indian outward FDI flows, cumulative over five-year periods.**  
(US\$ million)



Source: Calculation based on UNCTADStat (2015), available at <http://unctadstat.unctad.org/>.

of firms from large Indian business conglomerates, overwhelmingly belong to the manufacturing sectors (mainly low-technology and labour-intensive sectors), invested predominantly in developing countries, held minority equity ownership in most of the overseas ventures, and were basically market-seeking in character (Pradhan, 2008b; UNCTAD, 2004). Since the 1990s, such firms have been arising in almost all sectors of the Indian economy but increasingly in the services sector, led by the software industry; have been progressively targeting markets in developed countries; have been majority owned in most cases; and increasingly have been strategic asset-seeking and trade-supporting types of investment. The activities of outward-investing Indian firms are no longer confined to greenfield investments but include an increasing drive for overseas mergers and acquisitions (M&As). Some of these are of international significance, such as the acquisition of Corus (United Kingdom) by Tata Steel, Jaguar Land Rover (United Kingdom) and Daewoo Commercial Vehicle Company (Republic of Korea) by Tata Motors, Tetley Tea (United Kingdom) by Tata Tea and Flag Telecom (United Kingdom) by Reliance Infocomm (Pradhan, 2008a; Pradhan and Abraham, 2005).

**Table 1. Indian outward FDI flows and stocks, 1980–2014**

Period or year	OFDI (\$ million)	OFDI as % of			Outward-investing firms (no.)
		Inward FDI flows/stock	Gross fixed capital formation	GDP	
<i>Cumulative OFDI flows</i>					
1980–84	16	5.97	0.01	0.00	60
1985–89	28	3.59	0.01	0.00	100
1990–94	101	4.90	0.03	0.01	496
1995–99	599	4.57	0.12	0.03	883
2000–04	7,641	30.82	1.07	0.28	1,350
2005–09	71,705	52.71	3.84	1.28	2,742
2010–14	48,416	32.19	1.98	0.51	4,576
<b>Total</b>	<b>128,506</b>	<b>39.24</b>	<b>2.00</b>	<b>0.54</b>	<b>7,793</b>
<i>OFDI stock</i>					
1990	124	7.49	0.15	0.04	169
1995	495	8.78	0.51	0.13	750
2000	1,733	10.61	1.58	0.37	1,658
2005	9,741	22.55	3.70	1.16	2,693
2010	96,901	47.14	16.80	5.68	5,140
2014	129,578	51.35	..	6.35	7,793

*Source:* Based on UNCTADSTAT (2015), available at <http://unctadstat.unctad.org/>; Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* The number of outward-investing firms for cumulative OFDI flows was obtained by single-counting the names of firms undertaking outward investment during the respective period. For OFDI stock, the number of outward-investing firms was obtained by single-counting the names of outward-investing firms from 1980 to the year concerned. In calculating these numbers, 277 cases of OFDI ventures by individuals were excluded.

Indian firms are still relatively small in terms of production size when compared with developed-country multinational enterprises (MNEs) but are turning into truly global firms in terms of market focus. Pradhan and Aggarwal (2011) found that about 44-45 per cent of global sales well as assets of the top 15 outward-investing Indian firms were accounted for by foreign affiliates in 2009–10. Of seven outward-investing Indian firms for which geographical distribution of global sales was available, six were present in North America, in Europe, in Asia, and in the rest of the world in 2009–10, with no one region providing more than 50 per cent of global sales.<sup>1</sup> Clearly, a number of Indian firms have emerged as global firms in recent years, and some of them are less dependent on their home region (i.e. Asia) but more dependent on non-home regions.

With the continuation of current trends of policy liberalization and globalization, outward-investing Indian firms are expected to be more visible in world markets in the near future. As the number of Indian firms joining international production systems increases with the growing quantity of capital outflows, it becomes more important to measure the extent and impact of their activities on the host and home economies. Understanding the nature and patterns of Indian OFDI flows, the behaviour and strategies of Indian MNEs, and their determining forces may have important implications for growth and development at the sectoral level in both home and host countries.

## 2. Recent Developments in Indian Outward FDI Flows

The considerably increasing volumes of Indian OFDI flows in the past two decades are associated with a number of important structural transformations in their characteristics. What follows is an account of these distinctive changes in Indian OFDI flows.

### 2.1. Sectoral Diversification

With the participation of Indian firms from across all three sectors of the home economy, Indian cross-border investments have become sectorally broad based. The primary sector, which had hardly any presence in Indian OFDI flows during the 1980s and 1990s, accounted for as much as 19 per cent of such flows during 2000–09 (table 2). The services sector reclaimed its position as the leading OFDI sector during 2010–14, displacing manufacturing, which had dominated Indian

---

<sup>1</sup> The firms are Tata Motors Ltd., Suzlon Energy Ltd., Tata Chemicals Ltd., United Phosphorus Ltd., Wipro Ltd. and Dr. Reddy's Laboratories Ltd.

OFDI flows for two decades covering 1990–2009. The largest number of outward-investing firms originated from the services sector, at 4,407, followed by 2,356 firms from manufacturing and 270 from the primary sector.

### *The Primary Sector*

Indian investments in the primary sector have evolved, largely led by Indian firms, both State- and privately owned, seeking to secure access to natural resources such as oil and gas. Over 87 per cent of Indian OFDI flows from the primary sector relate to the extraction of crude petroleum and natural gas (table 3). The key driving factors appear to be the significant surge in the price of crude oil since 1999 and acute competition among fast-growing emerging economies and high-energy-

**Table 2. Sectoral composition of Indian OFDI flows, 1980–2014**

Period	<i>Cumulative OFDI flows by sector of investing firms (\$ million and per cent)</i>				
	Primary	Manufacturing	Services	Others including diversified	All sectors
1980–89	–	56 (36.9)	82 (54.4)	13 (8.7)	152 (100)
1990–99	13 (0.4)	1,713 (51.1)	1,404 (41.9)	221 (6.6)	3,351 (100)
2000–09	12,181 (18.6)	25,895 (39.6)	23,133 (35.4)	4,158 (6.4)	65,368 (100)
2010–14	10,122 (6.0)	65,845 (39.2)	89,355 (53.2)	2,564 (1.5)	167,886 (100)
1980–2014	22,316 (9.4)	93,509 (39.5)	113,975 (48.1)	6,957 (2.9)	236,757 (100)
<b>Memorandum items for the period 1980–2014:</b>					
<i>Investing firms (no.)</i>	270	2,356	4,407	774	7,793
<i>Per firm outward investment (\$ million)</i>	83	40	26	9	30

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a source sector is obtained by single-counting names of firms that are undertaking outward investment from the sector during the respective period. The total number of outward-investing firms for all the sectors is not the sum total of the numbers of outward-investing firms from different sectors, as the same firm could have invested abroad in more than one sectors. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

dependent developed countries for energy security (UNCTAD, 2007). Given India's high economic growth, expanding energy deficit and higher dependence on energy imports – including imports of petroleum – and the limited growth opportunity in the domestic crude petroleum and gas sector, India has proactively used State-owned petroleum and natural gas enterprises to undertake FDI in overseas oil and gas drilling activities. ONGC Videsh Limited, a public sector company, is the most aggressive player, leading the pack with its acquisition of a 15 per cent state in the Russian oil field of Vankor from Rosneft for \$1.3 billion in 2016, a 16 per cent stake in Mozambique's offshore Rovuma Area 1 for \$4.1 billion in 2013, all of Imperial Energy for \$2.1 billion in 2009, and a 20 per cent interest in the Sakhalin 1 oil and gas field for \$1.7 billion in 2001.

**Table 3. Composition of Indian OFDI flows in primary sector, 1980–2014**

<i>Cumulative OFDI flows by sector of investing firms (\$ million and per cent)</i>					
<b>Period</b>	<b>Crop and animal production, hunting and related service activities</b>	<b>Extraction of crude petroleum and natural gas</b>	<b>Mining and quarrying</b>	<b>Other primary sector activities</b>	<b>Total primary sector</b>
1990–99	4 (32.3)	5 (39.9)	2 (13.6)	2 (14.2)	13 (100)
2000–09	536 (4.4)	11,531 (94.7)	89 (0.7)	24 (0.2)	12,181 (100)
2010–14	1,279 (12.6)	7,891 (78.0)	936 (9.2)	17 (0.2)	10,122 (100)
1980–2014	1,820 (8.2)	19,427 (87.1)	1027 (4.6)	43 (0.2)	22,316 (100)
<i>Memorandum items for the period 1990–2014:</i>					
<i>Investing firms (no.)</i>	95	31	128	16	270
<i>Per firm outward investment (million)</i>	19	627	8	3	83

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a source sector is obtained by single-counting names of firms that are undertaking outward investment from the sector during the respective period. The total number of outward-investing firms for all the sectors is not the sum total of the numbers of outward-investing firms from different sectors, as the same firm could have invested abroad in more than one sectors. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

### *The Manufacturing Sector*

Indian manufacturing OFDI flows reflect two noticeable structural shifts since the 1980s. First, the rise of Indian manufacturing FDI has become widely spread across originating industries. Chemicals and chemical products accounted for more than half of Indian manufacturing OFDI flows during the 1980s (51.7 per cent), followed by coke and refined petroleum products, and food products, beverages and tobacco, each with a 9 per cent share, and paper and paper products with an 8 per cent share (table 4). These top four industries together, with a total share of 78 per cent, have dominated Indian manufacturing OFDI flows during 1980s. This concentrated pattern of Indian manufacturing OFDI flows has evolved into a more diversified one, with the share of the top four industries (basic metals and fabricated metal products, at 20.9 per cent; coke and refined petroleum products, at 20.7 per cent; pharmaceuticals, medicinal chemical and botanical products, at 13.9 per cent; and chemicals and chemical products, at 8.7 per cent) having declined to 64.2 per cent during 2010–14. Outward-investing firms from Indian manufacturing have emerged from a broader range of industrial activities, ranging from low-technology products such as food and textiles to high-technology products such as chemicals and pharmaceuticals. Second, Indian manufacturing OFDI flows are being increasingly led by comparatively technology-intensive industries. Excluding chemicals and chemical products, the combined share of remaining technology-intensive industries (i.e. pharmaceuticals; medicinal chemical and botanical products; motor vehicles, trailers and other transport equipment; machinery and equipment n.e.c.; electrical equipment; and computer, electronic and optical products) rose significantly, from 10.9 per cent during 1980–89 to 31.8 per cent during 2010–14. A rapidly growing home economy may be facilitating technologically capable manufacturing firms – for example, in pharmaceuticals or transport equipment – to seek exploitation of their ownership advantages in overseas markets or to support exports from India by establishing sales and marketing networks abroad. In part, such manufacturing OFDI flows could also be of the efficiency-seeking type, motivated to leverage the superior locational advantages offered by host countries.

### *The Services Sector*

The services sector hosts the largest number of outward-investing firms from India. This fact may not be surprising, as India emerged as a services-dominated economy and economic growth since the 1980s has been led primarily by services, notwithstanding the low level of per capita income. Technological progress, improving telecommunication infrastructure and the availability of low-cost, highly skilled human resources are adding to the global competitiveness of India in broad areas of services covering information and communication technology (ICT), ICT-enabled services, contract R&D, legal services, business services and the like. An

Table 4. Indian manufacturing OFDI flows, 1980–2014

Industry name	Cumulative OFDI flows by industries of investing firms (\$ million and per cent)					Memorandum items for the period 1980–2014:	
	1980–89	1990–99	2000–09	2010–14	1980–2014	Investing firms (no.)	Per firm outward investment (\$ million)
Basic metals and fabricated metal products	3 (4.5)	159 (9.3)	2,164 (8.4)	13,775 (20.9)	16,100 (17.2)	315	51
Chemicals and chemical products	29 (51.7)	394 (23.0)	2,502 (9.7)	5,725 (8.7)	8,650 (9.3)	343	25
Coke and refined petroleum products	5 (9.4)	179 (10.5)	1,332 (5.1)	13,645 (20.7)	15,161 (16.2)	36	421
Computer, electronic and optical products	0.01 (0.0)	311 (18.2)	1,322 (5.1)	2,006 (3.0)	3,639 (3.9)	154	24
Electrical equipment	1 (2.4)	30 (1.8)	476 (1.8)	2,539 (3.9)	3,047 (3.3)	145	21
Food products, beverages and tobacco	5 (8.7)	91 (5.3)	1,405 (5.4)	2,776 (4.2)	4,278 (4.6)	207	21
Gems and jewelry	–	12 (0.7)	368 (1.4)	1,098 (1.7)	1,478 (1.6)	69	21
Leather and related products	2 (4.3)	18 (1.1)	17 (0.1)	309 (0.5)	347 (0.4)	42	8
Machinery and equipment n.e.c.	1 (2.0)	43 (2.5)	3,719 (14.4)	4,800 (7.3)	8,563 (9.2)	177	48
Motor vehicles, trailers and other transport equipment	1 (1.8)	8 (0.5)	5,573 (21.5)	2,419 (3.7)	8,001 (8.6)	104	77
Other non-metallic mineral products	0.03 (0.1)	77 (4.5)	222 (0.9)	1,560 (2.4)	1,859 (2.0)	60	31
Paper and paper products	5 (8.1)	3 (0.2)	156 (0.6)	1,443 (2.2)	1,607 (1.7)	19	85
Pharmaceuticals, medicinal chemical and botanical products	3 (4.7)	186 (10.9)	4,404 (17.0)	9,154 (13.9)	13,747 (14.7)	153	90
Printing and reproduction of recorded media	–	3 (0.1)	40 (0.2)	9 (0.0)	52 (0.1)	29	2
Rubber and plastics products	0.5 (0.9)	43 (2.5)	928 (3.6)	1,437 (2.2)	2,408 (2.6)	123	20
Textiles and wearing apparel	1 (1.2)	114 (6.7)	961 (3.7)	2,768 (4.2)	3,845 (4.1)	220	17
Wood, products of wood and cork, straw and plaiting materials	–	3 (0.2)	6 (0.0)	75 (0.1)	84 (0.1)	19	4
Other manufacturing	0.2 (0.3)	38 (2.2)	299 (1.2)	306 (0.5)	643 (0.7)	150	4
<b>Total manufacturing</b>	<b>56 (100)</b>	<b>1,713 (100)</b>	<b>25,895 (100)</b>	<b>65,845 (100)</b>	<b>93,509 (100)</b>	<b>2,356</b>	<b>40</b>

Source: Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IC, Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up to December 1993, New Delhi: Government of India.

Note: Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a source sector is obtained by single-counting names of firms that are undertaking outward investment from the sector during the respective period. The total number of outward-investing firms for all the sectors is not the sum total of the numbers of outward-investing firms from different sectors, as the same firm could have invested abroad in more than one sectors. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.



Table 5. Indian services OFDI flows, 1980–2014

Industry name	Cumulative OFDI flows by services of investing firms (\$ million and per cent)					Memorandum items for the period 1980–2014:	
	1980–89	1990–99	2000–09	2010–14	1980–2014	Investing firms (no.)	Per firm outward investment (\$ million)
Accommodation and food service	10 (11.7)	176 (12.6)	155 (0.7)	803 (0.9)	1,144 (1.0)	97	11.8
Administrative and support services	1 (1.0)	38 (2.7)	928 (4.0)	4,541 (5.1)	5,508 (4.8)	596	9.2
Communication services	–	560 (39.9)	3,361 (14.5)	37,046 (41.5)	40,968 (35.9)	153	267.8
Construction	3 (3.2)	117 (8.3)	2,149 (9.3)	9,928 (11.1)	12,198 (10.7)	316	38.6
Education	–	1 (0.1)	37 (0.2)	125 (0.1)	162 (0.1)	53	3.1
Electricity, gas and water	–	1 (0.0)	1,290 (5.6)	3,866 (4.3)	5,156 (4.5)	79	65.3
Financial and insurance activities	56 (68.5)	113 (8.0)	2,515 (10.9)	6,850 (7.7)	9,534 (8.4)	416	22.9
Human health activities	–	8 (0.6)	70 (0.3)	1,267 (1.4)	1,345 (1.2)	89	15.1
IT and IT-enabled service, including software publishing	8 (9.1)	183 (13.0)	6,779 (29.3)	6,541 (7.3)	13,510 (11.9)	1,172	11.5
Legal and accounting activities	–	5 (0.4)	73 (0.3)	413 (0.5)	492 (0.4)	182	2.7
Professional, scientific and technical activities	0.2 (0.3)	22 (1.6)	426 (1.8)	1,899 (2.1)	2,348 (2.1)	157	15.0
Real estate activities	0.1 (0.2)	3 (0.2)	671 (2.9)	813 (0.9)	1,488 (1.3)	113	13.2
Transportation and storage	1 (1.6)	16 (1.2)	1,879 (8.1)	6,743 (7.5)	8,639 (7.6)	133	65.0
Wholesale and retail trade	3 (4.1)	155 (11.1)	1,924 (8.3)	6,220 (7.0)	8,303 (7.3)	673	12.3
Other service	0.3 (0.4)	5 (0.4)	876 (3.8)	2,299 (2.6)	3,181 (2.8)	182	17.5
<b>Total services</b>	<b>82 (100)</b>	<b>1,404 (100)</b>	<b>23,133 (100)</b>	<b>89,355 (100)</b>	<b>113,975 (100)</b>	<b>4,407</b>	<b>26</b>

Source: Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up to December 1993, New Delhi: Government of India.

Note: Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a source sector is obtained by single-counting names of firms that are undertaking outward investment from the sector during the respective period. The total number of outward-investing firms for all the sectors is not the sum total of the numbers of outward-investing firms from different sectors, as the same firm could have invested abroad in more than one sectors. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

increasing number of Indian services firms are internationalizing because of their growing competitiveness. As a result, India has seen a sustained increase in market-seeking OFDI flows in services since the 1980s. Indian service providers in a number of activities, including those in ICT and ICT-enabled service, cannot provide effective and secure services along with adequate after-sales support without having a local presence in overseas markets.

The composition of India's services OFDI flows in the 1980s was heavily concentrated in financial and insurance activities, with more than two thirds of the flows (68.5 per cent), followed by accommodation and food service with 11.7 per cent and IT and IT-enabled services, including software publishing, with 9 per cent (table 5). By 2010–14, communication services had become the leading source with a 41.5 per cent share, followed by construction with 11 per cent, financial and insurance activities with 7.7 per cent, transportation and storage with 7.5 per cent, and IT and IT-enabled service, including software publishing, with 7.3 per cent.

## *2.2. Geographical Distribution*

The geography of India's OFDI flows has overcome the hesitation of Indian firms to invest in developed regions that was observed during the 1980s. In that decade, less than one-fourth of such flows went to developed regions and the remaining, dominant share went to developing and transition regions (table 6). Indian firms possessing modest technological advantages, derived from reverse engineering and adaptive R&D activities related to imported technologies for cost-effective manufacturing, were generally more attracted to developing and transition economies that were similar to India in terms of level of development and business environment.

However, the role of developed economies as hosts to Indian OFDI flows has greatly increased, with their share rising to the highest level ever observed – 49.5 per cent during 2000–09. The increase in the number of Indian firms entering developed regions is driven by firm-specific objectives of exploitation and acquisition of intangible assets. The technological capabilities of Indian firms in a number of manufacturing industries such as pharmaceuticals, automotive, and steels have improved, thus driving them to seek access to the large, competitive markets of developed economies. Moreover, Indian firms have resorted to M&As to acquire new technologies, skills and marketing networks overseas, and developed economies with an abundance of such resources are natural targets of these M&As. Indian services OFDI flows, specifically from ICT and ICT-enabled services, have also been driven more to developed regions.

Transition economies, mainly led by the Russian Federation and Kazakhstan, saw their share of Indian OFDI flows falter, dropping to a historically low level of less than 1 per cent during 2010–14 from the 19 per cent observed during 1980–99.

**Table 6. Geographical distribution of Indian OFDI flows, 1980–2014**

Period	<i>Cumulative OFDI flows (\$ million and per cent)</i>			
	Developing region	Transition region	Developed region	All regions
1980–89	86 (56.9)	29 (19.4)	36 (23.7)	152 (100)
1990–99	1,793 (53.5)	81 (2.4)	1,476 (44.1)	3,351 (100)
2000–09	30,721 (47.0)	2,316 (3.5)	32,331 (49.5)	65,368 (100)
2010–14	100,494 (59.9)	1,304 (0.8)	66,088 (39.4)	167,886 (100)
1980–2014	133,095 (56.2)	3,730 (1.6)	99,931 (42.2)	236,757 (100)
<b>Memorandum items for the period 1980–2014:</b>				
<i>Investing firms (no.)</i>	4,752	144	3,992	7,793
<i>Per firm outward investment (\$ million)</i>	28	26	25	30

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a host region is obtained by single-counting names of firms that have undertaken outward investment in the said host region during the respective period. The total number of outward-investing firms for all the regions is not the sum of the numbers of outward-investing firms from different regions, as the same firm could have invested abroad in more than one host regions. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

A long-term view of Indian OFDI flows to developing regions reveals a significant shift in their spatial distribution. During 1980–99, the majority of Indian OFDI flows destined to developing regions went to developing Asia, accounting for an average 75.5 per cent of the total flows (table 7). Developing economies such as Singapore and the United Arab Emirates turn out to be the largest host countries largely because of their geographical proximity, the similarity of their business environments, and their strong historical and cultural relationship with India. However, the share of developing Asia in Indian OFDI directed at developing regions has steadily declined, to 49 per cent during 2010–14. Africa's share in Indian OFDI flows into developing regions, by contrast, increased to 37.6 per cent during 2010–14 from 17.7 per cent during 1990–99. Indian OFDI flows into Africa are mainly driven by large inflows into

Mauritius, which is increasingly acting as a gateway for Indian firms to target Africa. In addition to closer historical relations with India, Mauritius offers the fastest-growing economy; a pro-business climate; a well-developed physical, financial and digital network infrastructure and preferential access to African markets. The share of Latin America and the Caribbean in Indian OFDI flows jumped from less than 2 per cent during 1990–99 to 13 per cent during 2010–14, owing to the attraction of the tax haven of the British Virgin Islands.

Indian investments in developed regions have surged since the 1980s, with a distinct shift in favour of Europe. The share of Europe in Indian OFDI flows into developed regions increased from 51.7 per cent during 1980–89 to 75.5 per cent during 2010–14 (table 8). By contrast, North America saw its share decline from 48.3 per cent to 18.2 per cent between these periods. The increased share of Europe largely reflects the expansion by Indian firms of their overseas operations in European markets as a strategy for reducing their disproportionate focus on the United States market. This is particularly true for Indian ICT, pharmaceutical, automotive and steel companies that are undertaking M&As as well as greenfield investments in European countries as part of their geographical diversification strategies. It is important to note that these transformations in outflows to developed regions have taken place with two major traditional developed-host economies, namely the United States in North America and the United Kingdom in Europe, registering significant declines in their share between 1980–89 and 2010–14. However, the Netherlands and Switzerland have achieved rising shares of Indian OFDI flows to developed regions during the recent periods.

It is clear that Indian OFDI flows are dominated by economies considered to have an advantageous fiscal regime such as Mauritius, Singapore, the British Virgin Islands, the Netherlands, Switzerland and Cyprus. In addition to possessing favourable treaties covering bilateral investment, double-taxation avoidance or comprehensive economic partnerships with India, many of these countries also offer low tax rates and access to international financial markets in order to attract Indian firms. As such economies are less likely to be the ultimate destination of Indian OFDI flows, one part of such flows may be redirected to other countries while another part could be round-tripping, i.e. coming back to India as FDI inflows. Therefore, the regional distribution of Indian OFDI flows should be interpreted with caution.

**Table 7. Indian FDI flows into developing economies, 1980–2014**

Region/country	Cumulative OFDI flows (\$ million and per cent)					Memorandum items for the period 1980–2014:	
	1980–89	1990–99	2000–09	2010–14	1980–2014	Investing firms (no.)	Per firm outward investment (\$ million)
Africa	25 (29.4)	317 (17.7)	9,918 (32.3)	37,752 (37.6)	48,012 (36.1)	1,126	43
Eastern Africa	5 (5.7)	226 (12.6)	8,242 (26.8)	36,903 (36.7)	45,376 (34.1)	846	54
Ethiopia	–	–	12 (0.0)	57 (0.1)	68 (0.1)	59	1
Kenya	1 (0.8)	13 (0.7)	138 (0.4)	19 (0.0)	170 (0.1)	72	2
Mauritius	0 (0.5)	201 (11.2)	8,019 (26.1)	34,083 (33.9)	42,303 (31.8)	596	71
Mozambique	–	–	18 (0.1)	2,655 (2.6)	2,674 (2.0)	25	107
Middle Africa	–	–	74 (0.2)	32 (0.0)	106 (0.1)	16	7
Northern Africa	1 (1.3)	41 (2.3)	1,119 (3.6)	433 (0.4)	1,594 (1.2)	56	28
Egypt	1 (1.3)	8 (0.5)	445 (1.4)	155 (0.2)	609 (0.5)	27	23
Sudan	–	–	525 (1.7)	14 (0.0)	539 (0.4)	9	60
Southern Africa	–	22 (1.2)	177 (0.6)	257 (0.3)	456 (0.3)	138	3
South Africa	–	21 (1.2)	159 (0.5)	237 (0.2)	416 (0.3)	125	3
Western Africa	19 (22.4)	29 (1.6)	306 (1.0)	126 (0.1)	480 (0.4)	156	3
The Americas	0 (0.2)	31 (1.7)	2,956 (9.6)	13,127 (13.1)	16,114 (12.1)	291	55
Caribbean	–	3 (0.2)	2,163 (7.0)	10,638 (10.6)	12,805 (9.6)	140	91
British Virgin Islands	–	–	1,904 (6.2)	7,460 (7.4)	9,364 (7.0)	99	95
Cayman Islands	–	–	184 (0.6)	3,023 (3.0)	3,207 (2.4)	30	107
Central America	0 (0.2)	9 (0.5)	211 (0.7)	2,261 (2.2)	2,480 (1.9)	73	34
Panama	0 (0.2)	3 (0.2)	121 (0.4)	2,211 (2.2)	2,335 (1.8)	22	106
South America	–	19 (1.1)	582 (1.9)	228 (0.2)	829 (0.6)	101	8
Brazil	–	3 (0.1)	505 (1.6)	101 (0.1)	609 (0.5)	75	8
Asia	61 (70.3)	1,445 (80.6)	17,845 (58.1)	49,608 (49.4)	68,958 (51.8)	3,826	18
Eastern Asia	–	470 (26.2)	859 (2.8)	2,367 (2.4)	3,696 (2.8)	548	7

**Table 7. Indian FDI flows into developing economies, 1980–2014** (concluded)

Region/country	Cumulative OFDI flows (\$ million and per cent)					Memorandum items for the period 1980–2014:	
	1980–89	1990–99	2000–09	2010–14	1980–2014	Investing firms (no.)	Per firm outward investment (\$ million)
China	–	27 (1.5)	293 (1.0)	295 (0.3)	615 (0.5)	177	3
Hong Kong (China)	–	443 (24.7)	509 (1.7)	1528 (1.5)	2,480 (1.9)	362	7
Korea, Rep. of	–	1 (0.0)	2 (0.0)	542 (0.5)	545 (0.4)	20	27
Southern Asia	15 (17.2)	230 (12.8)	521 (1.7)	1,198 (1.2)	1,964 (1.5)	608	3
Sri Lanka	8 (8.7)	91 (5.0)	322 (1.0)	722 (0.7)	1,142 (0.9)	295	4
South-Eastern Asia	38 (44.4)	285 (15.9)	12,625 (41.1)	36,589 (36.4)	49,538 (37.2)	1,815	27
Indonesia	2 (2.4)	26 (1.5)	234 (0.8)	680 (0.7)	943 (0.7)	132	7
Malaysia	7 (8.1)	60 (3.3)	164 (0.5)	663 (0.7)	894 (0.7)	194	5
Singapore	24 (27.3)	158 (8.8)	11,525 (37.5)	34,685 (34.5)	46,392 (34.9)	1,403	33
Thailand	6 (6.4)	35 (2.0)	311 (1.0)	194 (0.2)	546 (0.4)	128	4
Western Asia	7 (8.6)	460 (25.7)	3,839 (12.5)	9454 (9.4)	13,760 (10.3)	1,388	10
Oman	0 (0.3)	141 (7.9)	159 (0.5)	572 (0.6)	872 (0.7)	106	8
Saudi Arabia	1 (0.6)	42 (2.4)	132 (0.4)	495 (0.5)	670 (0.5)	53	13
United Arab Emirates	2 (1.8)	240 (13.4)	3,345 (10.9)	7,861 (7.8)	11,448 (8.6)	1,164	10
Oceania	0 (0.1)	–	3 (0.0)	8 (0.0)	11 (0.0)	8	1
<b>Total, developing regions</b>	<b>86 (100)</b>	<b>1,793 (100)</b>	<b>30,721 (100)</b>	<b>100,494 (100)</b>	<b>133,095 (100)</b>	<b>4,752</b>	<b>28</b>

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Only leading host countries by region are shown. Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a host region is obtained by single-counting names of firms that have undertaken outward investment in the said host region during the respective period. The total number of outward-investing firms for all the regions is not the sum of the numbers of outward-investing firms from different regions, as the same firm could have invested abroad in more than one host regions. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

**Table 8. Indian OFDI flows into developed economies, 1980–2014**

Region/country	<i>Cumulative OFDI flows (\$ million and per cent)</i>					<i>1980–2014</i>	
	1980–89	1990–99	2000–09	2010–14	1980–2014	Investing firms (no.)	Per firm investment (\$ million)
Northern America	17 (48.3)	404 (27.4)	7,182 (22.2)	12,032 (18.2)	19,636 (19.6)	2,433	8
Bermuda	–	16 (1.1)	820 (2.5)	430 (0.7)	1,265 (1.3)	12	105
Canada	–	5 (0.3)	598 (1.8)	600 (0.9)	1,202 (1.2)	132	9
United States	17 (48.3)	384 (26.0)	5,764 (17.8)	11,003 (16.6)	17,168 (17.2)	2,340	7
Asia	–	40 (2.7)	75 (0.2)	107 (0.2)	222 (0.2)	88	3
Israel	–	25 (1.7)	12 (0.0)	32 (0.0)	69 (0.1)	16	4
Japan	–	15 (1.0)	63 (0.2)	75 (0.1)	153 (0.2)	73	2
Europe	19 (51.7)	1,028 (69.7)	24,295 (75.1)	49,866 (75.5)	75,208 (75.3)	1,871	40
Austria	–	37 (2.5)	30 (0.1)	5 (0.0)	72 (0.1)	22	3
Belgium-Luxembourg	–	17 (1.1)	367 (1.1)	937 (1.4)	1,321 (1.3)	93	14
Channel Islands	–	–	35 (0.1)	783 (1.2)	818 (0.8)	12	68
Cyprus	–	20 (1.3)	5,240 (16.2)	2,109 (3.2)	7,369 (7.4)	114	65
Denmark	–	–	706 (2.2)	362 (0.5)	1,068 (1.1)	12	89
France	–	3 (0.2)	312 (1.0)	195 (0.3)	511 (0.5)	68	8
Germany	0 (0.6)	24 (1.6)	298 (0.9)	449 (0.7)	771 (0.8)	266	3
Ireland	–	38 (2.6)	82 (0.3)	488 (0.7)	608 (0.6)	29	21
Isle of Man	–	–	480 (1.5)	138 (0.2)	618 (0.6)	14	44
Italy	–	12 (0.8)	195 (0.6)	128 (0.2)	334 (0.3)	59	6
Netherlands	–	57 (3.9)	5,469 (16.9)	34,233 (51.8)	39,759 (39.8)	234	170
Spain	–	1 (0.0)	220 (0.7)	405 (0.6)	626 (0.6)	38	16

**Table 8. Indian OFDI flows into developed economies, 1980–2014** (concluded)

Region/country	Cumulative OFDI flows (\$ million and per cent)					1980–2014	
	1980–89	1990–99	2000–09	2010–14	1980–2014	Investing firms (no.)	Per firm investment (\$ million)
Switzerland	0 (1.0)	7 (0.5)	865 (2.7)	3,564 (5.4)	4,436 (4.4)	113	39
United Kingdom	17 (48.5)	798 (54.0)	9,723 (30.1)	5,829 (8.8)	16,367 (16.4)	949	17
Oceania	–	3 (0.2)	779 (2.4)	4,083 (6.2)	4,866 (4.9)	226	22
Australia	–	3 (0.2)	775 (2.4)	4,070 (6.2)	4,849 (4.9)	206	24
Developed economies	36 (100)	1,476 (100)	32,331 (100)	66,088 (100)	99,931 (100)	3,992	25

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Only leading host countries by region are shown. Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms for a host region is obtained by single-counting names of firms that have undertaken outward investment in the said host region during the respective period. The total number of outward-investing firms for all the regions is not the sum of the numbers of outward-investing firms from different regions, as the same firm could have invested abroad in more than one host regions. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

### 2.3. Ownership Choices

The long-term shift in the preference of Indian firms for wholly owned subsidiaries (WOSs) relative to joint ventures (JVs) is also distinctly apparent in the composition of Indian OFDI flows. JVs accounted for close to two thirds of Indian OFDI flows during 1980–89 (63 per cent), reflecting the fact that Indian firms with their modest technological advantages and inadequate experience in operating cross-border businesses at that time overwhelmingly chose joint ownership as the more preferred choice of internationalization (table 9). JVs provided these firms with a less risky mode for trans-border expansion when a local partner is participating in the proposed ventures by contributing capital, management and information on the local market and regulatory environment. WOSs emerged as the largest form of Indian OFDI flows during 2010–14, accounting for 69 per cent, more than double their share during 1980–89 (32.6 per cent). The choice of Indian firms to resort overwhelmingly to WOSs in recent periods is due to a number of factors, including the need to



protect firm-specific assets that are getting sophisticated due to indigenous R&D and M&As, liberalization of home-country OFDI policy permitting full ownership and the investment climate turning favourable at the global level.

The ownership choices of Indian firms as revealed by the composition of OFDI flows also exhibit interesting regional differences. For the period 1980–99, JVs and WOSs had equal shares in Indian OFDI flows to developing regions, but WOSs accounted for the dominant share going to developed regions (table 10). In the case of flows

**Table 9. Ownership choices in Indian investment abroad, 1980–2014**

<b>Ownership choice</b>	<b>1980–89</b>	<b>1990–99</b>	<b>2000–09</b>	<b>2010–14</b>	<b>1980–2014</b>
<i>Cumulative OFDI flows associated with JVs or WOSs (\$ million and per cent)</i>					
Joint ventures	95 (62.7)	1,285 (38.4)	15,243 (23.3)	52,270 (31.1)	68,894 (29.1)
Wholly owned subsidiaries	49 (32.6)	2,065 (61.6)	50,118 (76.7)	115,616 (68.9)	167,849 (70.9)
Unclassified	7 (4.7)	0.2 (0.0)	7 (0.0)	–	14 (0.0)
<b>Total</b>	<b>152</b> (100)	<b>3,351</b> (100)	<b>65,368</b> (100)	<b>167,886</b> (100)	<b>236,757</b> (100)
<i>Outward-investing firms undertaking JVs or WOSs (no.)</i>					
Joint ventures	88	647	1,285	1,622	3,123
Wholly owned subsidiaries	34	714	2,735	3,395	5,592
Unclassified	49	1	3	–	53
<b>Total</b>	<b>146</b>	<b>1,250</b>	<b>3,603</b>	<b>4,576</b>	<b>7,793</b>
<i>Per firm outward investment associated with JVs or WOSs (\$ million)</i>					
Joint ventures	1	2	12	32	22
Wholly owned subsidiaries	1	3	18	34	30
Unclassified	0.1	0.2	2	–	0.3
<b>Total</b>	<b>1</b>	<b>3</b>	<b>18</b>	<b>37</b>	<b>30</b>

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms undertaking JV (or WOS) is obtained by single-counting names of firms that are undertaking outward investment for JV (or WOS) during the respective period. In the case of number of Indian investing firms, the sum of the JVs and WOS is not equal to total because a given Indian firm may undertake a JV and WOS simultaneously. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

to transition economies, in contrast, JVs were the primary choice. The contrasting ownership choices of Indian firms across developed, developing and transition host economies could be due to regional differences in the nature of overseas operations undertaken by these firms.

Indian FDI projects in developed regions during 1980–99 predominantly consisted of services activities in trading, consultancy, hotel, software and financial services, and the like, while projects in developing regions were directed at manufacturing activities (Pradhan, 2008a, 2008c). The majority of these services activities require relatively fewer resources (relatively low capital intensity), unlike manufacturing operations, and investing companies were capable of meeting the financial commitment of these OFDI projects on their own. Also, services such as software and financial services involve close relationships with clients, personalized services and confidentiality of information, which make WOSs more attractive to Indian investing firms as a mode of overseas expansion than JVs in developed regions. In contrast, JVs provided a relatively less risky mode for Indian manufacturing firms entering developing regions, given the joint contribution of investments and other resources with local firms.

The ownership pattern of Indian investments by host region have changed over time, partly in response to the diversifying sectoral composition of such investments. Compared with 1980–99, for example, the share of WOSs in Indian investments in developing regions has risen to 80.5 per cent during 2000–14, while the share of JVs has decreased to less than 20 per cent (table 10). WOSs continued to dominate Indian OFDI flows into developed regions but were of less importance than before, given the increase in the share of JVs to 39 per cent. As outward investment by Indian manufacturing firms in developed regions and by Indian services firms in developing regions have been gaining momentum in recent periods, the relative importance of WOSs relative to JVs has been changing for these host locations.

#### ***2.4. Enterprise Type***

In terms of the distribution of Indian OFDI flows by types of enterprises, the universe of overseas investing Indian firms is becoming dominated by the rise of domestic business groups. The share of such groups in Indian investment abroad had increased considerably, from 42 to 71 per cent, between the periods 1980–89 and 2010–14, while the share of stand-alone firms (i.e. firms that are not affiliated with any domestic business groups) declined from 20.5 to 7.9 per cent (table 11). Responding to continuing liberalization and increased competitive pressures, Indian domestic business groups have bolstered their overseas business operations more than stand-alone firms. Growing competition is driving these business groups – which possess superior bundles of competitive assets as compared with stand-alone firms (Pradhan and Singh, 2011) – to look at overseas markets through greater outward investments. The share of State-owned enterprises in Indian OFDI flows stayed at

Table 10. Ownership structure of regional Indian OFDI flows, 1980–2014

Region/country	Cumulative OFDI flows (\$ million and per cent)							
	1980–99			2000–14				
	Joint ventures	Wholly owned subsidiaries	Unclassified	Total	Joint ventures	Wholly owned subsidiaries	Unclassified	Total
Developing economies	932 (49.6)	942 (50.1)	6 (0.3)	1,880 (100)	25,582 (19.5)	105,627 (80.5)	7 (0.0)	131,215 (100)
Africa	152 (44.5)	188 (54.9)	2 (0.6)	343 (100)	5,678 (11.9)	41,985 (88.1)	7 (0.0)	47,670 (100)
Latin America and Caribbean	29 (94.5)	2 (5.5)	–	31 (100)	2,890 (18.0)	13,193 (82.0)	–	16,083 (100)
Asia	750 (49.8)	752 (49.9)	4 (0.3)	1,506 (100)	17,014 (25.2)	50,438 (74.8)	0.1 (0.0)	67,452 (100)
Oceania	0.1 (100.0)	–	–	0.1 (100)	1 (4.9)	10 (95.1)	–	10 (100)
Economies in transition	102 (92.4)	8 (7.6)	–	110 (100)	3,232 (89.3)	388 (10.7)	–	3,620 (100)
Asia	71 (96.0)	3 (4.0)	–	74 (100)	851 (83.9)	163 (16.1)	–	1,015 (100)
Europe	31 (85.1)	5 (14.9)	–	36 (100)	2,380 (91.4)	225 (8.6)	–	2,605 (100)
Developed economies	347 (22.9)	1,164 (77.0)	1 (0.1)	1,512 (100)	38,700 (93.3)	59,719 (60.7)	0.1 (0.0)	98,419 (100)
Northern America	155 (36.9)	266 (63.0)	1 (0.1)	422 (100)	4,970 (25.9)	14,244 (74.1)	0.1 (0.0)	19,214 (100)
Asia	36 (88.9)	4 (11.1)	–	40 (100)	80 (44.1)	102 (55.9)	–	182 (100)
Europe	36 (88.9)	4 (11.1)	–	40 (100)	80 (44.1)	102 (55.9)	–	182 (100)
<b>All regions</b>	<b>1,381 (39.4)</b>	<b>2,114 (60.4)</b>	<b>7 (0.2)</b>	<b>3,502 (100)</b>	<b>67,513 (28.9)</b>	<b>165,734 (71.1)</b>	<b>7 (0.0)</b>	<b>233,254 (100)</b>

Source: Based on Reserve Bank of India (various years). Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years); Joint ventures and wholly owned subsidiaries abroad, New Delhi: IC; Ministry of Commerce (1994). Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up to December 1993, New Delhi: Government of India.

Only leading host countries by region are shown. Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms undertaking JV (or WOS) is obtained by single-counting names of firms that are undertaking outward investment for JV (or WOS) during the respective period. In the case of number of Indian investing firms, the sum of the JVs and WOS is not equal to total because a given Indian firm may undertake a JV and WOS simultaneously. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

10 per cent or less, largely targeted at securing access to energy resources. Overall, it is clear that the bulk of Indian OFDI flows is led by privately owned enterprises, while State-owned enterprises play a modest role.

It is important to note that different categories of Indian outward-investing firms differ markedly in terms of their geographical spread over time. Firms affiliated with domestic business groups were heavily focused on developing markets, which attracted as much as 71.4 per cent of their OFDI flows during 1980–99 (table 12). These firms began to invest an increasing proportion of their overseas investments in developed regions during 2000–14, with the share rising to 42 per cent from 26 per cent in the past. In contrast, stand-alone firms, after directing the major share of their OFDI to developed regions during the initial periods of the 1980s–1990s, invested more in developing regions than in any other region during 2000–14. Most OFDI by State-owned firms went to developing regions initially; however, the growing importance of economies in transition and developed regions during 2000–14 is also notable.

In terms of sectoral operations, services constituted a larger component of OFDI by stand-alone enterprises, accounting for 53 per cent, whereas manufacturing overwhelmingly dominated OFDI by domestic business groups, accounting for 65.5 per cent during 1980–99 (table 13). Since 2000–14, stand-alone firms have made a strong push towards manufacturing in their OFDI activities and as a result, the share of manufacturing (49 per cent) has slightly surpassed that of services (45 per cent). In contrast, services have received increasing focus from domestic business groups in their OFDI operations, whose share stood at 50 per cent, modestly exceeding the 45 per cent share of manufacturing. It is clear that stand-alone and domestic business groups are becoming increasingly involved in both manufacturing and services activities in their overseas investments whereas their FDI in primary sector remains low. State-owned enterprises invested in manufacturing and services overseas during 1980–99, but the primary sector became the dominant sector, with 75 per cent of OFDI during 2000–14. This reflects the strategy of State-owned firms using OFDI as a means of securing energy resources abroad.

### **2.5. Firm Size**

The patterns of Indian OFDI flows by enterprise size confirm that large Indian firms are the biggest outward investors. The share of large firms in OFDI flows has increased consistently, from 64.4 per cent during 1980–89 to 83.6 per cent during 2010–14 (table 14). Small and medium-size Indian firms respectively accounted for only 1.8 and 0.7 per cent of Indian OFDI flows during 1980–2014. This supports the view that large firms that have advantages in terms of tangible and intangible resources are more capable of easily offsetting the sunk costs and meeting the risks involved in investing abroad. Although the number of small and medium-size Indian firms investing abroad is growing, they tend to invest in small-value projects.

**Table 11. Types of enterprises involved in Indian investment abroad, 1980–2014**

<b>Enterprise type</b>	<b>1980–89</b>	<b>1990–99</b>	<b>2000–09</b>	<b>2010–14</b>	<b>1980–2014</b>
<i>Cumulative OFDI flows associated with JVs or WOSs (\$ million and per cent)</i>					
Domestic stand-alone	31 (20.5)	247 (7.4)	6,309 (9.7)	13,268 (7.9)	19,855 (8.4)
Domestic business groups	64 (42.4)	2,011 (60.0)	38,991 (59.6)	119,843 (71.4)	160,910 (68.0)
State-owned enterprises <sup>a</sup>	11 (7.5)	133 (4.0)	6,733 (10.3)	10,724 (6.4)	17,602 (7.4)
Foreign affiliates	2 (1.3)	136 (4.1)	2,226 (3.4)	2,088 (1.2)	4,452 (1.9)
Unclassified	43 (28.4)	823 (24.6)	11,108 (17.0)	21,964 (13.1)	33,938 (14.3)
<b>All enterprises</b>	<b>152</b> <b>(100)</b>	<b>3,351</b> <b>(100)</b>	<b>65,368</b> <b>(100)</b>	<b>167,886</b> <b>(100)</b>	<b>236,757</b> <b>(100)</b>
<i>Outward-investing firms (no.)</i>					
Domestic stand-alone	19	239	623	610	1,121
Domestic business groups	61	295	561	566	941
State-owned enterprises <sup>a</sup>	9	15	19	20	42
Foreign affiliates	6	28	63	56	96
Unclassified	51	674	2,341	3,327	5,602
<b>All enterprises</b>	<b>146</b>	<b>1,250</b>	<b>3,603</b>	<b>4,576</b>	<b>7,793</b>
<i>Per firm outward investment (\$ million)</i>					
Domestic stand-alone	2	1	10	22	18
Domestic business groups	1	7	70	212	171
State-owned enterprises <sup>a</sup>	1	9	354	536	419
Foreign affiliates	0.3	5	35	37	46
Unclassified	1	1	5	7	6
<b>All enterprises</b>	<b>1</b>	<b>3</b>	<b>18</b>	<b>37</b>	<b>30</b>

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms is obtained by single-counting names of firms that are undertaking outward investment during the respective period and firm category. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

<sup>a</sup> Including co-operatives and enterprises run on public-private partnership modes.

Table 12. Types of enterprise and regional direction of Indian OFDI flows, 1980–2014

Enterprise type	Cumulative OFDI flows (\$ million and per cent)									
	1980–99					2000–14				
	Developing economies	Transition economies	Developed economies	World	Developing economies	Transition economies	Developed economies	World		
Domestic stand-alone	72 (26.0)	41 (14.7)	165 (59.3)	278 (100)	10,788 (55.1)	47 (0.2)	8,742 (44.7)	19,577 (100)		
Domestic business groups	1,482 (71.4)	52 (2.5)	541 (26.1)	2,075 (100)	92,397 (58.2)	273 (0.2)	66,164 (41.7)	158,834 (100)		
State-owned enterprises	111 (76.8)	1 (0.9)	32 (22.3)	144 (100)	8,823 (50.5)	3,180 (18.2)	5,455 (31.2)	17,458 (100)		
Foreign affiliates	36 (25.9)	(0.0)	102 (74.1)	138 (100)	1,326 (30.7)	9 (0.2)	2,979 (69.1)	4,314 (100)		
Unclassified	178 (20.6)	16 (1.9)	672 (77.5)	866 (100)	17,882 (54.1)	112 (0.3)	15,078 (45.6)	33,072 (100)		
<b>All enterprises</b>	<b>1,880 (53.7)</b>	<b>110 (3.2)</b>	<b>1,512 (43.2)</b>	<b>3,502 (100)</b>	<b>131,215 (56.3)</b>	<b>3,620 (1.6)</b>	<b>98,419 (42.2)</b>	<b>233,254 (100)</b>		

Source: Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai; Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi; IIC, Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up to December 1993, New Delhi; Government of India.

Note: Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms is obtained by single-counting names of firms that are undertaking outward investment during the respective period and firm category. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

Table 13. Types of enterprise and sectoral Indian OFDI flows, 1980–2014

Enterprise type	Cumulative OFDI flows (\$ million and per cent)							
	1980–99			2000–14				
	Primary	Manufacturing	Services	All sectors	Primary	Manufacturing	Services	All sectors
Domestic stand-alone	7 (2.6)	123 (44.2)	147 (52.9)	278 (100)	1,049 (5.4)	9,523 (48.6)	8,831 (45.1)	19,577 (100)
Domestic business groups	1 (0.0)	1,359 (65.5)	560 (27.0)	2,075 (100)	6,012 (3.8)	71,616 (45.1)	79,649 (50.1)	158,834 (100)
State-owned enterprises	–	72 (49.5)	60 (41.7)	144 (100)	13,099 (75.0)	1,956 (11.2)	2,402 (13.8)	17,458 (100)
Foreign affiliates	–	77 (55.7)	61 (44.3)	138 (100)	16 (0.4)	1,931 (44.8)	2,348 (54.4)	4,314 (100)
Unclassified	5 (0.6)	139 (16.0)	658 (75.9)	866 (100)	2,128 (6.4)	6,714 (20.3)	19,257 (58.2)	33,072 (100)
All enterprises	13 (0.4)	1,769 (50.5)	1,487 (42.4)	3,502 (100)	22,303 (9.6)	91,740 (39.3)	112,488 (48.2)	233,254 (100)

Source: Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai; Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi; IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up to December 1993, New Delhi; Government of India.

Note: Others are not shown. Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms is obtained by single-counting names of firms that are undertaking outward investment during the respective period and firm category. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

**Table 14. Enterprise size and Indian investment abroad, 1980–2014**

<b>Enterprise size</b>	<b>1980–89</b>	<b>1990–99</b>	<b>2000–09</b>	<b>2010–14</b>	<b>1980–2014</b>
<i>Cumulative OFDI flows (\$ million and per cent)</i>					
Small enterprise	1 (0.7)	64 (1.9)	1,371 (2.1)	2,868 (1.7)	4,304 (1.8)
Medium enterprise	0.1 (0.1)	15 (0.5)	882 (1.3)	647 (0.4)	1,544 (0.7)
Large enterprise	98 (64.6)	2,301 (68.7)	51,236 (78.4)	140,269 (83.6)	193,904 (81.9)
Unclassified	53 (34.7)	971 (29.0)	11,880 (18.2)	24,101 (14.4)	37,005 (15.6)
<b>All enterprises</b>	<b>152</b> <b>(100)</b>	<b>3,351</b> <b>(100)</b>	<b>65,368</b> <b>(100)</b>	<b>167,886</b> <b>(100)</b>	<b>236,757</b> <b>(100)</b>
<i>Outward investing firms (no.)</i>					
Small enterprise	10	68	169	121	287
Medium enterprise	1	35	72	57	115
Large enterprise	76	421	885	869	1,460
Unclassified	59	726	2,477	3,532	5,934
<b>All enterprises</b>	<b>146</b>	<b>1,250</b>	<b>3,603</b>	<b>4,576</b>	<b>7,793</b>

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms is obtained by single-counting names of firms that have undertaken outward investment during the respective period and firm category. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

## 2.6. Enterprise Age

The distribution of Indian OFDI flows by enterprise age reveals that relatively younger firms are a leading source of FDI. During the study period 1980–2014, Indian firms age 11–20 years accounted for 32.5 per cent share in total Indian OFDI flows, followed by those age 41 and older (23 per cent), and those age 1–10 (17 per cent) (table 15). Thus, Indian firms up to 20 years old invested nearly half of Indian OFDI. The share of Indian firms in the middle age groups of 21–30 and 31–40 years respectively had 15.4 and 10.8 per cent shares. This may indicate that an increasing number of Indian firms are assuming investment in foreign markets sooner, contrary to the prediction



of the Uppsala model (Johanson and Vahlne, 1977) in which the internationalization of firms is a gradual process. It could be that the “born global” phenomenon (Oviatt and Patricia, 1995; Madsen and Per, 1997; Moen and Servias, 2002) is gaining ground among Indian firms, especially from knowledge-based services such as ICT and ICT-enabled industry.

**Table 15. Enterprise age and Indian investment abroad, 1980–2014**

Enterprise age	1980–89	1990–99	2000–09	2010–14	1980–2014
<i>Cumulative OFDI flows (\$ million and per cent)</i>					
1 to 10 years	24 (16.1)	725 (21.6)	16,302 (24.9)	23,126 (13.8)	40,177 (17.0)
11 to 20 years	60 (39.7)	1,634 (48.8)	14,399 (22.0)	60,879 (36.3)	76,971 (32.5)
21 to 30 years	36 (24.0)	388 (11.6)	11,713 (17.9)	24,392 (14.5)	36,530 (15.4)
31 to 40 years	5 (3.1)	210 (6.3)	2,775 (4.2)	22,586 (13.5)	25,576 (10.8)
41 years to above	26 (17.0)	394 (11.8)	17,424 (26.7)	36,890 (22.0)	54,734 (23.1)
Unclassified	–	0.2 (0.0)	2,755 (4.2)	13 (0.0)	2,768 (1.2)
<b>All enterprises</b>	<b>152</b> <b>(100)</b>	<b>3,351</b> <b>(100)</b>	<b>65,368</b> <b>(100)</b>	<b>167,886</b> <b>(100)</b>	<b>236,757</b> <b>(100)</b>
<i>Outward investing firms (no.)</i>					
1 to 10 years	58	737	1,950	2,324	4,603
11 to 20 years	21	308	1,085	1,267	2,287
21 to 30 years	14	110	487	725	1,126
31 to 40 years	18	61	159	266	437
41 years and above	41	97	211	291	444
All enterprises	146	1,250	3,603	4,576	7,793

*Source:* Based on Reserve Bank of India (various years), Outward FDI from India, Mumbai: Overseas Investment Division, Exchange Control Department; Indian Investment Centre (various years), Joint ventures and wholly owned subsidiaries abroad, New Delhi: IIC; Ministry of Commerce (1994), Factsheet on Indian joint ventures and wholly owned subsidiaries abroad up To December 1993, New Delhi: Government of India.

*Note:* Data is on approval basis comprising remittances done by Indian firms for overseas investments under Automatic Route as well as those permitted under Approval Route; data for 2001 are only from January to March; data for 2002 are from October to December; and data for 2007 are from January to March and from July to December. The number of outward-investing firms is obtained by single-counting names of firms that are undertaking outward investment during the respective period and firm age category. However, for a given period, the name of a given firm may appear in more than one enterprise-age category. For instance, if the age of a firm-X is 9 years in 1980, then it will attain the age of 10 years in 1981, 14 years in 1985 and 18 years in 1989. Therefore, for the period 1980–89, the name of this firm will appear in both the age groups of 1 to 10 years and 11 to 20 years. Similarly, the total number of outward-investing firms for the study period 1980–2014 is not the sum total of the information pertaining to different sub-periods, as the same firm could have invested abroad during different sub-periods. In calculating the number of outward-investing firms, a number of cases of outward FDI ventures by individuals were excluded.

### 3. Conclusion

With the liberalization and openness measures underway since the 1990s, an increasing number of Indian firms have progressively taken to OFDI, in line with their efforts to diversify away from the domestic market. Against the backdrop of heightened market competition on home turf, continued high growth of the home economy and considerably expanding business prospects worldwide, Indian OFDI registered a phase of rapid expansion. This indicates that internationalization has clearly gained strategic importance for the survival and growth of capable Indian firms in recent periods.

It is not just an increase in terms of quantity: Indian OFDI flows have undergone significant shifts in characteristics, sectors, host regions, mode of ownership, size and age distribution, and enterprise type. The strong increase in Indian OFDI flows in recent periods has become sectorally broad based with a rising contribution from the primary sector, mainly extraction of crude petroleum and natural gas. Services turns out to be the leading OFDI sector during the current decade, dislodging manufacturing, which dominated Indian OFDI flows during the 1990s and 2000s. Both services and manufacturing OFDI in turn have become widely spread across economic activities. A broader range of industrial activities – ranging from low-technology products such as food and textiles to high-technology products such as chemicals and pharmaceuticals – have been the focus of in manufacturing OFDI. Such flows are being led more often by comparatively technology-intensive industries. The services sector has turned out to be home to the largest number of outward-investing firms from India.

Indian OFDI flows have also expanded geographically. The role of developed economies as host to these flows has increased greatly. All markets abroad, whether in developing or developed countries, are becoming equally important for emerging global players from India. What is also noticeable is the growing preference of Indian companies to go for majority ownership in their overseas investment projects. The marked improvements in the firm-specific capabilities of Indian firms as a result of more extensive in-house R&D, large-scale acquisitions of foreign-created assets and easier access to global capital markets could be adding to their preference for full ownership.

Overseas investments from India have begun to reflect a greater role for young enterprises, partly indicating that the new generation of Indian entrepreneurs is taking to internationalization very early. However, large firms still dominate the OFDI scenario even when small and medium-size firms participate. This may imply that reaching a critical firm size is important for Indian firms to be able to overcome the sunk costs associated with establishing overseas businesses and that only young firms that have such scale advantages are enjoying a prominent role.

Indian OFDI flows have also had distinctive features in terms of the profile of the investing enterprise. Domestic business groups have emerged as the largest contributor to Indian OFDI. They are expected to continue their global expansion as firms affiliated with business groups possess the superior advantages of created assets and complementarities. The bulk of Indian OFDI flows are led by privately owned enterprises. State-owned enterprises play a modest role limited to natural resource extraction activities.

Factors prompting Indian manufacturing firms to actively pursue OFDI include large size, experience, R&D and export orientation. Higher productivity and capital goods imports are other firm-specific factors that motivate these firms to expand their operations overseas (Pradhan, 2004; Thomas and Narayanan, 2017). The changing institutional configuration – state policies, corporate finance and governance, skills formation and technological upgrading – has critically shaped the evolution of enterprise competitiveness in the Indian pharmaceutical sector (Taylor, 2017). In contrast to the past, Indian pharmaceutical companies have sought to build their comparative advantages and market positions through the non-traditional mode of strategic alliances and partnership with global MNEs. These firms can no longer rely on reverse engineering or process developments alone and are upgrading their capabilities through internal R&D for product development and novel drug delivery, exports, overseas greenfield investments and acquisitions, and strategic alliances. In addition to specializing in generic drugs, these firms are diversifying into global markets by entering into contract manufacturing and services for global MNEs. Changing industrial policies, economic structures and institutional environments are critically shaping the evolution of Indian pharmaceutical firms in the global market place.

OFDI from India is not limited to production but also includes overseas R&D activities (De Beule and Somers, 2017). The most important gain that India as a home country could get from foreign R&D by her firms is the improved competitiveness of the firms and industries involved. The fact that overseas R&D by Indian firms is positively boosting parent firms' R&D in India reflects the process of knowledge transfers, linkages and interactions within Indian MNEs, which is likely to contribute to enhancing the competitiveness of the home economy.

As OFDI tends to enlarge market access for Indian firms and contribute to their technological upgrading through the acquisition of strategic assets or overseas R&D, the policy priorities should be aimed at promoting OFDI, especially into overseas knowledge-intensive sectors and R&D. These efforts may include the provision of fiscal supports such as tax breaks or lower tax rates for income from OFDI ventures, expansion of the insurance and risk-mitigating measures for OFDI, information provision, and the like.

## References

- De Beule, F. and D. Somers (2017), 'The impact of international R&D on home-country R&D for Indian multinationals', *Transnational Corporations*, 24(1), pp. 27-55.
- Johanson, J., and J. E. Vahlne (1977), The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments, *Journal of International Business Studies*, 8(1), pp. 23–32.
- Madsen, T. K., and S. Per (1997), The internationalization of born globals: An evolutionary process? *International Business Review*, 6(6), pp. 561–583.
- Moen, O., and P. Servias (2002), Born global or gradual? Examining the export behaviour of small and medium-sized enterprises, *Journal of International Marketing*, 10(3), pp. 49–72.
- Oviatt, B. M., and P. M. Patricia (1995), Global start-ups: Entrepreneurs on a worldwide stage, *The Academy of Management Executive*, 9(2), pp. 30–43.
- Pradhan, J. P. (2004), The Determinants of Outward Foreign Direct Investment: A Firm-Level Analysis of Indian Manufacturing, *Oxford Development Studies*, 32 (4), pp. 619–639.
- Pradhan, J. P. (2008a), *Indian multinationals in the world economy: Implications for development*, New Delhi: Bookwell Publisher.
- Pradhan, J. P. (2008b), The evolution of Indian outward foreign direct investment: Changing trends and patterns, *International Journal of Technology and Globalisation*, 4(1), pp. 70–86.
- Pradhan, J. P. (2008c), India's emerging multinationals in developed region, paper presented at the CBS Conference, *Emerging Multinationals: Outward Foreign Direct Investment from Emerging and Developing Economies*, Copenhagen Business School, Denmark, 9–10 October.
- Pradhan, J. P., and N. Singh (2011), Business group affiliation and location of Indian firms' foreign acquisitions, *Journal of International Commerce, Economics and Policy*, 2(1), pp. 19–41.
- Pradhan, J. P., and R. Aggarwal (2011), On the globalness of emerging multinationals: A study of Indian MNEs, *Economia e politica industriale – Journal of Industrial and Business Economics*, 38(1), pp. 163–180.
- Pradhan, J. P., and V. Abraham (2005), Overseas mergers and acquisitions by Indian enterprises: patterns and motivations (with V. Abraham), *Indian Journal of Economics*, 85(33), pp. 365–386.
- Sauvant, K. P., J. P. Pradhan, A. Chatterjee and B. Harley (eds.) (2010), *The rise of Indian multinationals: Perspectives on Indian outward foreign direct investment*, New York: Palgrave Macmillan.
- Taylor, H. (2017), 'Uncovering the institutional foundations of specialization patterns in the Indian pharmaceutical industry', *Transnational Corporations*, 24(1), pp. 57-79.
- Thomas, R. and K. Narayanan (2017), 'Determinants outward foreign direct investment: a study of Indian manufacturing firms', *Transnational Corporations*, 24(1), pp. 9-26.
- UNCTAD (2004) India's outward FDI: A giant awakening?, UNCTAD/Press/EB/2004/009, 20 October.
- UNCTAD (2007), *World investment report 2007: Transnational corporations, extractive industries and development*, New York and Geneva: United Nations.