The Growth Story of Indian Multinationals

ISB and VCC release the first ever ranking of Indian multinationals investing abroad

Hyderabad and New York, April 9, 2009

The Indian School of Business (ISB) and the Vale Columbia Center on Sustainable International Investment (VCC), a joint Columbia Law School-The Earth Institute center at Columbia University in New York, **are releasing the results of the first ever survey of outward-investing Indian multinational enterprises (MNEs) today.** The survey is part of a long-term study of the rapid global expansion of MNEs in BRIC countries: Brazil, Russia, India and China. The results released today document the growth of Indian MNEs in particular. The Survey starts with 2006 data as a base period. Future surveys will cover the growth of Indian MNEs in 2007, the effects of the downturn in 2008, and subsequent developments in 2009 and thereafter.

The survey ranks Indian multinationals on the basis of their foreign assets (Table 1 below). The 24 selected MNEs held over USD 15 billion in foreign assets in 2006, with the Oil and Natural Gas Corporation (ONGC), which ranked first, accounting for just over USD 4.7 billion and the Tata Group following with nearly USD 4.2 billion. Together, these 24 companies had nearly USD 13 billion in foreign sales in 2006 and employed 60,000 workers abroad. India was the fifth largest outward investor among emerging markets in 2006, after the other three BRIC countries and Hong Kong (China). The focus of India's overseas investment up to 2006 has been on oil and gas, pharmaceuticals, IT and metals.

"The emergence of multinational enterprises from developing countries is an inevitable byproduct of globalization," says Ajit Rangnekar, Dean, ISB. "The long-term impact of such investments cannot be measured by taking snap shots of share prices during growth or recessionary times. We are delighted to collaborate with Columbia University on this study as the true story of growth unfolds only when progress is studied over a long period and is compared to MNEs in other countries."

Adds Karl P. Sauvant, Executive Director of VCC: "Indian multinationals are new players in the world foreign direct investment market; together with their other BRIC counterparts, they are bound to transform it rapidly."

Table 1 ranks 24 Indian multinationals − companies headquartered in India that have management control over at least one foreign affiliate in another country − by the size of their *foreign* assets. As not all candidate companies responded to the survey and

reliable public information was not always available, the 24 listed below cannot be described as the *largest* outward investors from India. However, they are certainly *among* the largest.

Table 1. ISB-VCC ranking of 24 selected Indian multinationals, 2006 (millions of USD) [a]

Rank	Name	Industry	Foreign assets
1	Oil and Natural Gas Corporation (ONGC)	Oil & gas operations	4,724
2	Tata Group of companies	Conglomerate	4,169
3	Videocon Industries Limited	Conglomerate	1,626
4	Ranbaxy Laboratories Limited	Pharmaceuticals	1,077
5	Dr. Reddy's Laboratories Limited	Pharmaceuticals	869
6	HCL Technologies Limited	IT services	777
7	Hindalco Industries Limited	Aluminum manufacturer	581
8	Sun Pharmaceutical Industries Limited	Pharmaceuticals	281
9	Reliance Industries Limited	Oil & gas operations	250
10	Suzlon Energy Limited	Power & energy	135
11	Larsen & Toubro (L&T) Limited	Engineering & construction	130
12	Wipro Technologies	IT services	128
13	Bharat Forge Limited	Auto component solution provider (forging)	106
14	Patni Computer Systems Limited	IT services	81
15	Hexaware Technologies Limited	IT services	69
16	Biocon Limited	Pharmaceuticals	50
17	i-Gate Global Solutions Limited	IT services	49
18	Max India Limited	Conglomerate	37
19	Mahindra & Mahindra Limited	Automobile manufacturer	35
20	NIIT Limited	IT services	31
21	Piramal Healthcare limited	Pharmaceuticals	26
22	Birlasoft (India) Limited	IT services	21
23	Raymond Limited	Fabric manufacturer	18
24	Infosys Technologies Limited	IT services	9
Total			**15,279**

Source: Indian School of Business-Vale Columbia Center ranking of Indian multinationals.

[a] The original list included Satyam Computer Services Limited, indicating foreign assets worth USD 522 mn. However, due to a lack of certainty about the accuracy of the 2006 data, it has now been omitted.

The principal findings of the survey include the following:

India's 24 selected[1] MNEs – ranked by foreign assets in 2006 – had *USD 15.3 billion (bn)*[2] in assets abroad (Table 1), had nearly *USD 13 bn* in foreign sales and employed 60,000 persons abroad (Table 2). Foreign assets, sales and employment had increased by 122%, 65% and 43% respectively between 2005 and 2006 (Table 2). The largest concentration of foreign affiliates was in Europe (165 affiliates), representing 37% of all foreign affiliates. The Oil and Natural Gas Corporation (ONGC) contributed 31% of the total foreign assets of the selected 24, while The Tata Group – which includes Tata Steel, Tata Chemicals, Tata Consultancy Services (IT), Tata Motors and Tata Communications (telecoms), among other companies − contributed another 27%. Note that, as a percentage of the USD 30 billion in foreign stock held by Indian enterprises in 2006 – see Annex table 7 − the foreign assets of these 24 companies are about 50%.

It remains to be seen what impact the current crisis will have on Indian multinationals. Indian firms in a good financial position may take advantage of the low asset prices in world markets and make strategic acquisitions [3]. Other firms may need to put their foreign expansion on hold or even sell off foreign assets to support their balance sheets. Future surveys will reveal the impact of the crisis.

Profile of the 24

- Foreign **assets exploded** by 122% in 2006. The primary drivers of this rapid accumulation of foreign assets included the search for strategic and complementary locational assets in metals, oil and gas, and other raw materials, and the desire to diversify globally.

- Indian multinationals **lagged behind their foreign counterparts**. Only ONGC and the Tata Group of companies had over USD 2 bn in foreign assets, and only the Tata Group employed a significant number of people (over 24,600) abroad (annex table 1).

- Indian multinationals increased their foreign sales by 65%, to approximately USD 13 bn, from 2005 to 2006, and foreign **employment by 43%**, from 42,000 to 60,000 people (Table 2).

- **Foreign assets and sales as a percentage of the total assets and sales** of these companies were about 21% and 18% respectively, whereas foreign employment represented 13% of total employment (Table 2).

- **Growth in foreign assets, employment and sales from 2005 to 2006 fueled the increase in total assets, employment and sales of the 24.** The USD 8.4 bn rise in foreign assets represented 53% of the USD 15.9 bn increase in total assets, and the USD 5 bn increase in foreign sales accounted for 35% of the USD 14.4 bn increase in total sales (Table 2).

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[1] The Indian School of Business conducted several rounds of surveys with the largest Indian MNEs. In addition, extensive research was done from publicly available data to determine the level of foreign assets. The companies in this list are those that responded to the surveys or for which reliable public data could be found. As a result, some MNEs which own substantial foreign assets may not appear on the list.

[2] The following Rupee/US Dollar exchange rates, based on the rates of the International Monetary Fund (http://www.imf.org), were used throughout: 44.23 (2006); 45.07 (2005); 43.58 (2004).

[3] For an analysis of the impact of the crisis on FDI flows, see Karl P. Sauvant, "The FDI Recession has Begun", at www.vcc.columbia.edu.

Table 2. Snapshot of the 24 selected MNEs, 2004-2006 (billions of USD and thousands of employees)				
Variable	**2004**	**2005**	**2006**	**% change 2005−2006**
Assets				
Foreign	4.4	6.9	15.3	122%
Total	49.3	58.2	74.1	27%
Share of foreign in total (%)	9%	12%	21%	
Employment				
Foreign	27	42	60	43%
Total	306	376	458	22%
Share of foreign in total (%)	9%	11%	13%	
Sales				
Foreign	5.3	7.7	12.7	65%
Total	41.7	54.4	68.9	27%
Share of foreign in total (%)	13%	14%	18%	

Source: Indian School of Business-Vale Columbia Center ranking of Indian multinationals.

- The 24 selected companies had **441 foreign affiliates** in 75 countries. The Tata Group of Companies was present in 44 foreign countries, with 157 foreign affiliates, followed by Ranbaxy Pharmaceutical Limited, 31 countries and 47 foreign affiliates, and HCL Technologies Limited, 17 countries and 31 foreign affiliates (*annex table 1*).

- These 441 foreign affiliates were concentrated **in Europe** (37%), **Asia** (21%) and **North America** (19%), as indicated by the Regionality Index (*annex table 2*) and as seen in the distribution of foreign affiliates (*annex figure 1*). However, since 2006, they have been moving rapidly to markets in Africa, the Middle East, Australia and Latin America.

- The **geographic distribution of foreign affiliates** of the 24 Indian MNEs varied from sector to sector. For example, while Europe had the largest concentration of foreign affiliates in the power and energy sector, it had the smallest concentration in engineering and construction. The Middle East, on the other hand, had the largest concentration of foreign affiliates in the engineering and construction sector but had no foreign affiliates in the power and energy sector (*annex figure 2*). This diversity in the distribution of foreign affiliates was the result of the various drivers that influence outward FDI (*annex figure3*).

- **Most** of the **investment** from India in 2006 was being made by **publicly listed companies.** The only company in the list of 24 that was not publicly listed was **Birlasoft**, a private limited company with USD 0.02bn in foreign assets. Of the rest, one was a state-controlled company with just over USD 4.7bn in foreign assets − **ONGC**, in which the Indian government holds a 74.14% equity stake. The remaining 22 together accounted for just over USD 10.5 bn in foreign assets.

- The companies on the list were to be found in **eight different industries** – or nine, if conglomerates are counted as one. Judged by foreign assets, conglomerates dominate, with 37% of the aggregate assets. The oil & gas industry comes next, with 33% of the list's assets, while pharmaceuticals are a somewhat distant third, with 15% (annex figure 4). Judged by *numbers* of companies, IT is the leading industry on the list, with eight companies, followed by pharmaceuticals with five, and then oil & gas and autos/auto parts with two each. Also represented are metals, power and energy, engineering and construction, and textiles. Given the number of IT companies on the list, it is of some interest to note that the conglomerate Tata Group includes Tata Consultancy Services (TCS), India's leading IT firm (2008 revenue USD 5.7 billion), along with companies in steel, autos, power and telecoms among others. The other large conglomerate on the list, Videocon, has businesses in electronics, home appliances, petroleum and power.

- Ten of the 24 selected MNEs were, and continue to be, headquartered **in Mumbai;** four in **Bangalore;** and the rest in **Aurangabad**, **Dehradun**, **Pune**, **Gurgaon, Noida and New Delhi** (*annex figure 5*).

- Two of the 24 selected companies were listed **on the London Stock Exchange**, eight on the **Luxembourg Stock Exchange,** four on the **New York Stock Exchange** and the **Singapore Stock Exchange**. 23 out of 24 companies were also listed on an **Indian Stock Exchange.** One company, Birlasoft, was not listed anywhere.

- The official language of 23 of the 24 selected companies is English; the official language of ONGC is Hindi.

The Big Picture

Indian firms have been investing abroad for many years, but it is only since the late 1990s that OFDI flows have risen rapidly, albeit from low levels (*annex figure 6*). Outflows were predicted to stay above USD 16 bn over 2008 – 2011, but given the worldwide economic difficulties expected in 2009 and beyond, this figure now appears optimistic[4].

As a result of the growth of outflows, the *stock* of outward FDI rose from about USD 0.1 bn in 1990 to about USD 2 bn in 2000, and then to USD 13 bn in 2006 (*annex figure 7*), taking India to 5th place among outward-investing emerging markets. Only Hong Kong (China), China, Brazil, and Russia had higher outflows in the year 2006. As evidenced by the high level of 2007 merger and acquisition (M&A) activity (*annex table 3*), Indian MNEs are taking increasing advantage of this mode of market entry. In fact, 2006-2007 saw a phenomenal rise in outward M&As, surging from USD 3.7 bn in 2006 to USD 24.7 bn in 2007, with the Tata Group alone accounting for USD 15.2 bn (2005-07) and Hindalco another USD 5.8 bn. Virtually all acquisitions were made in cash. As a result of their investment activity, four companies - Essar Group, United Breweries Limited, JSW Steel Limited and Hindustan Petroleum Corporation Limited (HPCL) − are likely candidates to join the ranks of the top Indian outward investors. Also, several state-owned companies like Krishak Bharati Co-Op and privately owned companies like United Phosphorus, Zee Telefilms Ltd., TransWorks Information Services, Essel Propack, Punj Lloyd, and Reliance Infocomm are most likely to have had, in 2006, foreign assets comparable to those of the 24 selected MNEs. However, due to a lack of information, they could not included in the present ranking.

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[4] Laza Kekic and Karl P. Sauvant, eds., *World Investment Prospects to 2011: Foreign Direct Investment and the Challenge of Political Risk*, at www.vcc.columbia.edu. Inputs from Jaya Prakash Pradhan, author of *Outward Foreign Direct Investments from India: Recent Trends and Patterns (2005)*, are acknowledged.

Greenfield investment (*annex table 4*) also surged between 2006 and 2007. With USD 13.2 bn in projects being announced in 2007, and outward foreign direct investment in 2007/2008 booming, the size of foreign assets owned by India's top MNEs could double[5].

[5] The Reserve Bank of India recently announced that total outward foreign direct investment from Indian companies in the 2007/2008 fiscal year was USD 17.4 bn, a 29.6% increase from the USD 13.5 bn in the 2006/2007 fiscal year.

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Emerging Markets Global Players Project

The ISB-VCC ranking of Indian multinational enterprises was conducted in the framework of the Emerging Market Global Players Project, a collaborative effort led by the Vale Columbia Center on Sustainable International Investment. It brings together researchers on FDI from leading institutions in emerging markets to generate annual ranking lists of emerging market MNEs. Ranking lists for Brazil, Russia, Slovenia, Israel and China have already been released. Visit www.vcc.columbia.edu for further information, or contact vcc@law.columbia.edu.

Five Diamond Conference Series

Given the importance of the international expansion of companies from the BRIC countries, the Indian School of Business, together with Vale Columbia Center on Sustainable International Investment, Fudan University, Fundação Dom Cabral, and the SKOLKOVO Moscow School of Management, will organize a series of conferences to explore further that phenomenon. The next Five Diamond conference will take place in Nova Lima, Brazil, August 18-19, 2009. For more information, please contact andres@fdc.org.br.

Indian School of Business (ISB)

The Indian School of Business (ISB), located in Hyderabad, Andhra Pradesh, India, is an international business School providing postgraduate programs (MBA) in management, post doctoral programs as well as executive education programs for business executives. It has a formal affiliation with three of the worlds leading business schools: Kellogg School of Management, The Wharton School and London Business School. The school is ranked 15th worldwide by FT rankings. For more information, see www.isb.edu

Vale Columbia Center on Sustainable International Investment

The Vale Columbia Center on Sustainable International Investment (VCC), headed by Dr. Karl P. Sauvant, is a joint undertaking of the Columbia Law School and The Earth Institute at Columbia University. It seeks to be a leader on issues related to FDI in the global economy, paying special attention to the sustainability dimension of this investment, VCC focuses on the analysis and teaching of the implications of FDI for public policy and international investment law. Its objectives are to analyze important, topical and policy-oriented issues related to FDI, develop and disseminate practical approaches and solutions, and provide students with a challenging learning environment. For more information, see www.vcc.columbia.edu.

Annex table 1. ISB-VCC ranking of the 24 selected Indian multinationals, key variables, 2006 (millions of USD and number of employees)[a]												
Ranking				**Assets[f]**		**Sales[f]**		**Employment**				
By foreign assets	**By multi-nationality index[b]**	**Name**	**Industry**	**Foreign**	**Total**	**Foreign**	**Total**	**Foreign**	**Total**	**Multi-nationality Index (%)**	**No. of foreign affiliates**	**No.of host countries**
1	**14**	Oil and Natural Gas Corporation	Oil & gas operations	4,724	21,031	1,645	17,115	NA	34,722	16%	4	3
2	**9**	Tata Group of companies [c]	Conglomerate	4,169	8,199	3,576	9,752	24,682	118,416	32%	157	44
3	**2**	Videocon Industries Limited	Conglomerate	1,626	2,297	966	1,632	NA	10,000	65%	16	11
4	**1**	Ranbaxy Laboratories Limited [d]	Pharmaceuticals	1,077	1,566	859	918	NA	11,343	81%	47	31
5	**5**	Dr. Reddy's Laboratories Limited	Pharmaceuticals	869	1,390	362	549	2,000	7,525	52%	27	14
6	**3**	HCL Technologies Limited	IT services	777	926	780	1,034	4,032	32,626	57%	31	17
7	**16**	Hindalco Industries Limited	Aluminum manufacturer	581	4,272	147	2,577	NA	19,593	10%	5	1
8	**10**	Sun Pharmaceuticals Industries	Pharmaceuticals	281	815	157	393	1,100	5,000	32%	11	9
9	**24**	Reliance Industries Limited [e]	Oil & gas operations	250	21,901	414	20,560	22	12,540	1%	3	3
10	**19**	Suzlon Energy	Power & energy	135	918	70	868	227	5,300	9%	14	7
11	**21**	Larsen & Toubro Limited	Engg. & construction	130	3718	143	3,800	NA	22,175	4%	17	13
12	**8**	Wipro Technologies	IT services	128	1,465	1,906	2,399	10,005	55,000	35%	14	8
13	**7**	Bharat Forge Limited	Auto component solns.	106	570	473	682	1,650	5,650	39%	10	6
14	**6**	Patni Computer Systems Limited	IT services	81	639	587	590	2,795	12,804	45%	5	3
15	**4**	Hexaware Technologies Limited	IT services	69	145	184	192	1,056	5,829	54%	10	7
16	**17**	Biocon Limited	Pharmaceuticals	50	291	23	178	2	2,542	10%	1	1
17	**12**	i-Gate Global Solutions Limited	IT services	49	91	12	144	837	5,152	26%	7	6
18	**23**	Max India Limited	Conglomerate	37	485	7	348	27	4,127	3%	5	4
19	**22**	Mahindra & Mahindra Limited	Automobile manufacturer	35	883	74	2,061	NA	12,089	4%	26	11
20	**13**	NIIT Limited	IT services	31	115	40	102	183	2,259	25%	9	8
21	**15**	Piramal Healthcare Limited	Pharmaceuticals	26	319	77	358	341	6,931	12%	4	4
22	**11**	Birlasoft (India) Limited	IT services	21	48	NA	133	582	3,248	31%	8	6
23	**20**	Raymond Limited	Fabric manufacturer	18	457	24	318	NA	10,324	6%	6	6
24	**18**	Infosys Technologies Limited	IT services	9	1,590	197	2,153	10,543	52,715	10%	4	4
TOTAL				**15,279**	**74,131**	**12,723**	**68,856**	**60,084**	**457,910**		**441**	

Source: Indian School of Business-Vale Columbia Center survey of Indian multinationals.

[a] As noted earlier, the original list included Satyam Computer Services Limited, indicating foreign assets worth USD 522mn. However, due to a lack of certainty about the accuracy of 2006 data, it has now been omitted.

[b] The multinationality index is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment.

[c] The Tata Group of companies is a conglomerate comprising Tata Steel, Tata Chemicals, Tata Consultancy Services, Titan Industries and Tata Communications, among others.

[d] Ranbaxy acquired Terapia, a generic company in Romania, in June 2006, for USD 324 million. The company aims to make Romania its manufacturing hub in Europe. Daiichi Sankyo, a Japanese pharmaceutical company, in turn acquired a majority stake in Ranbaxy in 2008.

[e] Reliance Industries Limited operates in oil & gas as well as textiles and retail trade.

[f] INR/USD exchange rate: 44.23; USD/AUD exchange rate: 0.7913

Annex table 2. The 24 selected Indian MNEs: Regionality Index,[a] 2006

Companies	Europe	Middle East	Africa	North America	Latin America	Asia	Australia
ONGC Limited	25	-	50	-	-	25	-
Tata Group of companies	36	1	6	12	11	28	6
Videocon Industries Limited	25	6	6	6	38	19	-
Ranbaxy Pharmaceuticals Limited	43	-	9	15	13	19	2
Dr. Reddy's Laboratories Limited	52	-	4	22	15	7	-
HCL Technologies Limited	29	-	6	39	-	16	10
Hindalco Industries Limited	-	-	-	-	-	-	100
Sun Pharmaceuticals Industries Limited	27	-	-	18	45	9	-
Reliance Industries Limited	67	33	-	-	-	-	-
Suzlon Energy Limited	64	-	-	21	-	7	7
Larsen & Toubro Limited	6	35	18	12	-	29	-
Wipro Technologies	43	-	7	36	-	14	-
Bharat Forge Limited	70	-	-	10	-	20	-
Patni Computer Systems Limited	60	-	-	40	-	-	-
Hexaware Technologies Limited	40	-	-	40	10	10	-
Biocon Limited	-	-	-	-	100	-	-
i-Gate Global Solutions Limited	29	-	-	43	-	29	-
Max India Limited	60	-	-	20	20	-	-
Mahindra & Mahindra Limited	38	4	12	23	4	19	-
NIIT Limited	11	-	11	11	11	56	-
Piramal Healthcare Limited	25	-	-	50	-	25	-
Birlasoft (India) Limited	38	-	-	38	-	12	12
Raymond Limited	67	-	-	17	-	17	-
Infosys Technologies Limited	25	-	-	25	-	25	25

Source: Indian School of Business-Vale Columbia Center survey of Indian multinationals.

[a] The Regionality Index is calculated by dividing the number of a firm's foreign affiliates in a particular region of the world by its total number of foreign affiliates and multiplying the result by 100.

Annex table 3. Top Indian outward merger and acquisition (M&A) transactions, 2005-2007

Rank	Date	Acquiror name	Target name	Target Industry	Target Country	Deal Value (USD million)	% of shares acquired
1	04/02/2007	Tata Steel Limited	Corus Group PLC	Metals & mining	United Kingdom	12,695	100
2	05/15/2007	Hindalco Industries Limited	Novelis Inc.	Metals & mining	United States	5,766	100
3	06/20/2007	Essar Global Limited	Algoma Steel Inc.	Metals & mining	Canada	1,467	100
4	06/272007	Tata Power Co Limited	Kaltim Prima Coal PT	Metals & mining	Indonesia	1,300	30
5	05/16/2007	United Breweries Limited	Whyte & Mackay Limited	Food and beverage	United Kingdom	1,176	100
6	08/22/2007	JSW Steel Limited	Jindal United Steel Corp	Metals & mining	United States	940	90
7	09/21/2006	Mansarovar Energy Columbia Limited[a]	Omimex de Colombia Limited	Oil & gas	Colombia	850	100
8	09/13/2006	Videocon Industries Limited	Daewoo Electonics Corp.	Electronics	Republic of Korea	729	97.50
9	09/24/2006	Tata Tea Limited	Energy Brands Inc	Food and beverage	United States	677	30
10	09/18/2007	Wipro Technologies	Infocrossing Inc	Computers & peripherals	United States	673	100
11	03/28/2007	Aban Offshore Limited	Sinvest ASA	Financials	Norway	658	50
12	02/17/2006	Dr. Reddy's Labs	Betapharm	Pharmaceuticals	Germany	597	100
13	03/17/2006	Suzlon Energy	Hansen Group	Energy	Belgium	565	NA
14	07/26/2005	HPCL	Kenya Petroleum Refinery Limited	Oil & gas	Kenya	500	NA
15	03/29/2006	Ranbaxy labs	Terapia SA	Pharmaceuticals	Romania	324	96.70
16	02/17/2005	Tata Steel	Natsteel	Steel	Singapore	293	NA
17	06/29/2005	Videocon	Thomson SA	Electronics	France	290	100
18	07/26/2005	VSNL (Now Tata Communications)	Teleglobe	Electronics	Canada	239	50.1

Source: Combined data from Thomson One Banker and ibef.org.

[a] Mansarovar Energy Columbia Limited is a 50:50 joint venture between ONGC Videsh Limited and Sinopec, China.

Annex table 4. Top 10 Indian outward greenfield investments, 2006-2007 (billions of USD)

Date	Company name	Destination country	Sector	Value
Jul-06	ONGC[a]	Nigeria	Coal, oil and natural gas	6.0
Nov-07	GAIL (India)[b]	Saudi Arabia	Petrochemicals	4.2
Dec-06	National Aluminium Company (NALCO)[b]	Indonesia	Metals	3.0
Jun-06	Jindal Steel and Power	Bolivia	Metals	2.3
Jan-07	Essar Group	Iran	Coal, oil and natural gas	2.0
May-07	Videocon Industries	Poland	Consumer electronics	1.7
Oct-07	Ispat Industries	Philippines	Metals	1.6
Feb-07	Videocon Industries	Italy	Consumer electronics	1.6
Jun-07	Ispat Industries	Serbia & Montenegro	Coal, oil and natural gas	1.1
Aug-07	Reliance Industries	Egypt	Petrochemicals	1.0

Source: fDi Intelligence, from the Financial Times Limited. Note: NALCO and Jindal Steel and Power had no foreign affiliates as reported in their Annual Report of 2006 (March 2006). Hence, they are not a part of the ranking list.

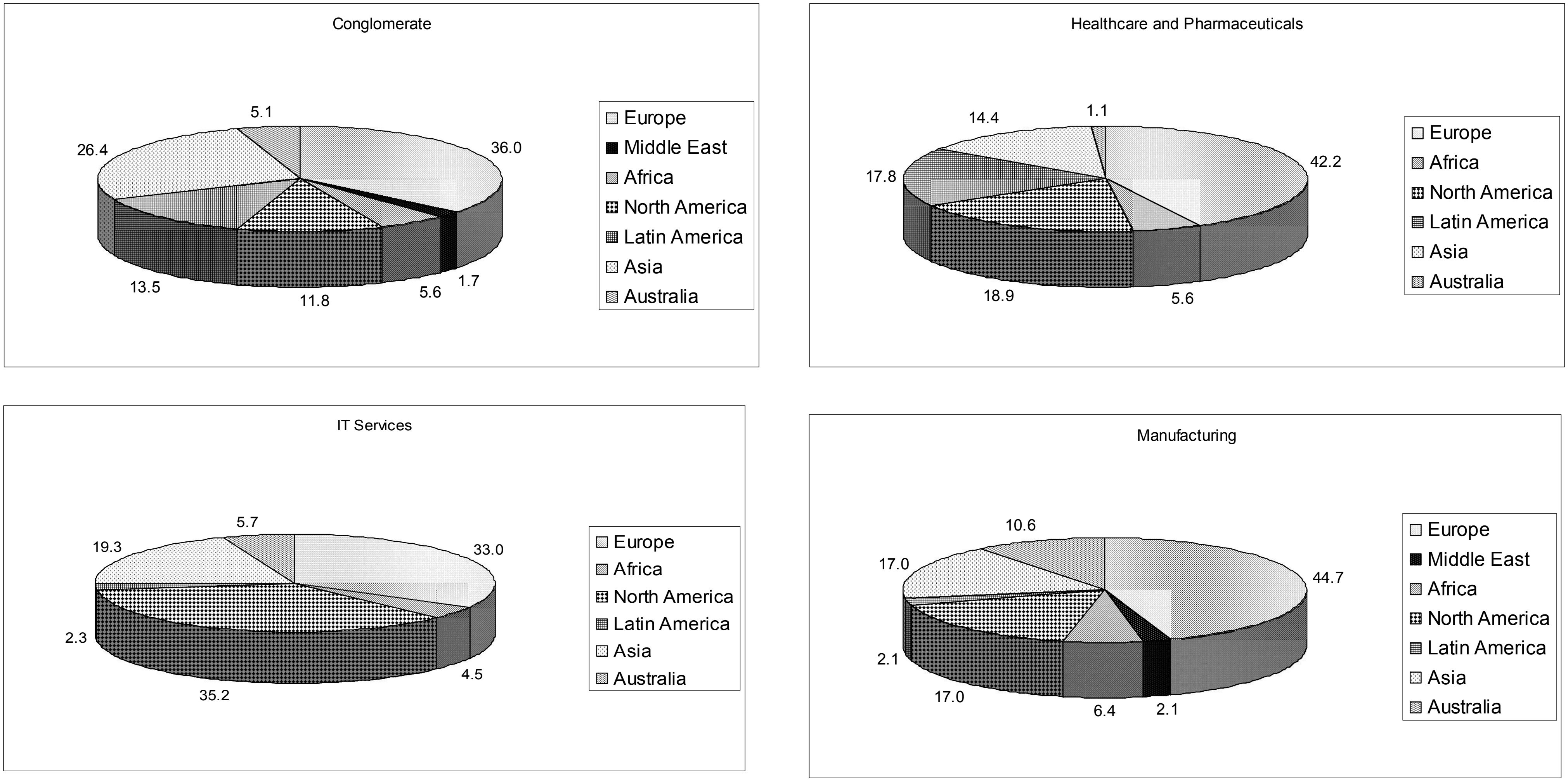
[a] ONGC reported this investment in June 2006. It is, however, not included in the foreign assets shown for ONGC in this report, as there was a lack of clarity about the exact value of ONGC's *actual* investment in 2006.

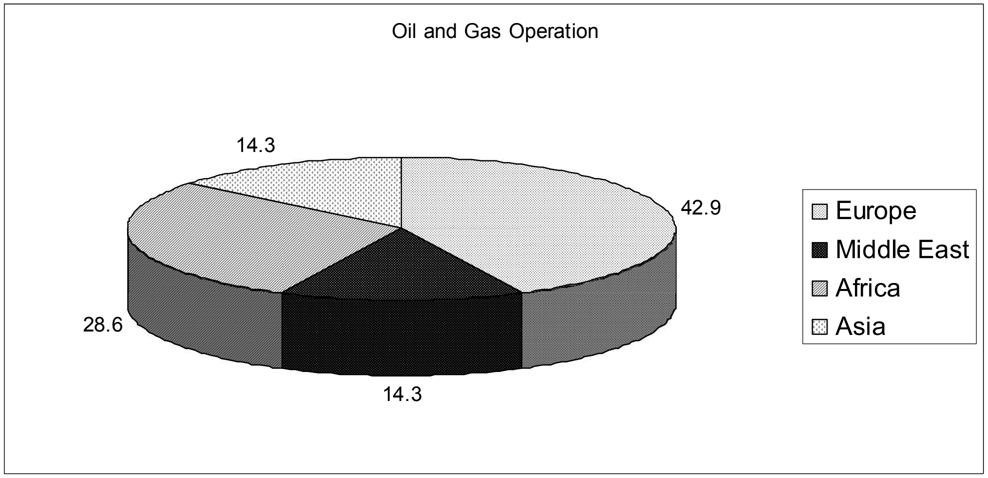
[b] GAIL, formerly Gas Authority of India Ltd, and NALCO are both state-owned enterprises, as of course is ONGC.

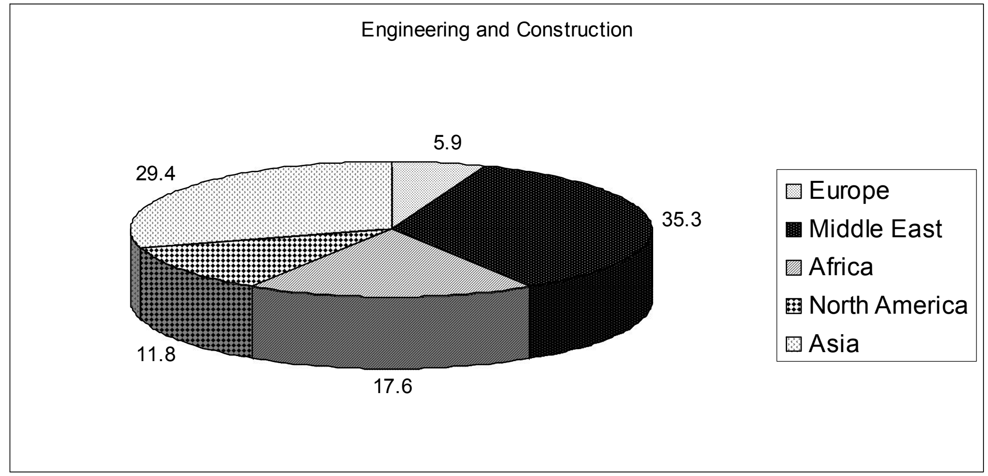
Annex figure 1. Foreign affiliates of the 24 selected Indian multinationals, by region, 2006 (number of affiliates)

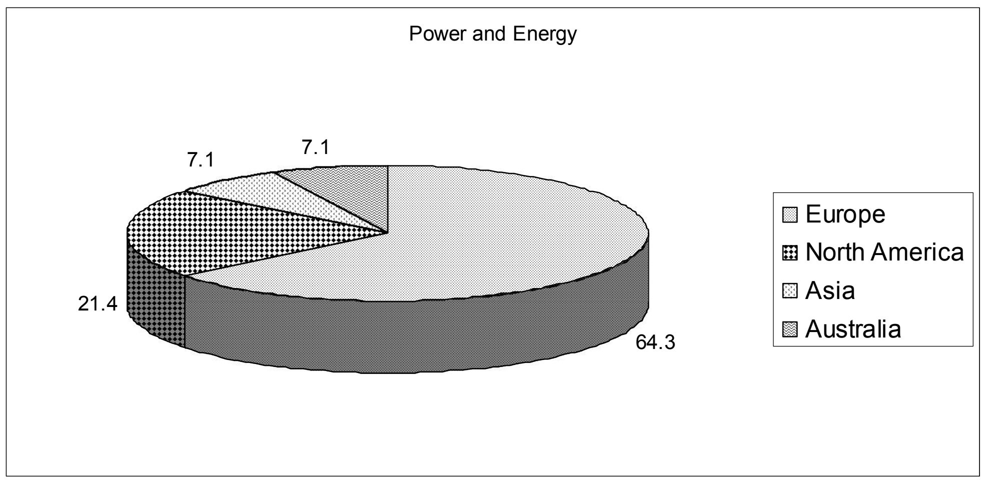
Source: Indian School of Business-Vale Columbia Center survey of Indian multinationals.

Annex figure 2. The geographic distribution of Indian foreign affiliates, by sector, 2006
(Percentage of foreign affiliates)









Source: Indian School of Business-Vale Columbia Center survey of Indian multinationals.

Annex figure 3. The drivers of Indian outward FDI

Market seeking: Investment that aims at either penetrating new markets or maintaining existing ones.

Resource seeking: Investment that seeks to acquire factors of production, mainly in natural resources.

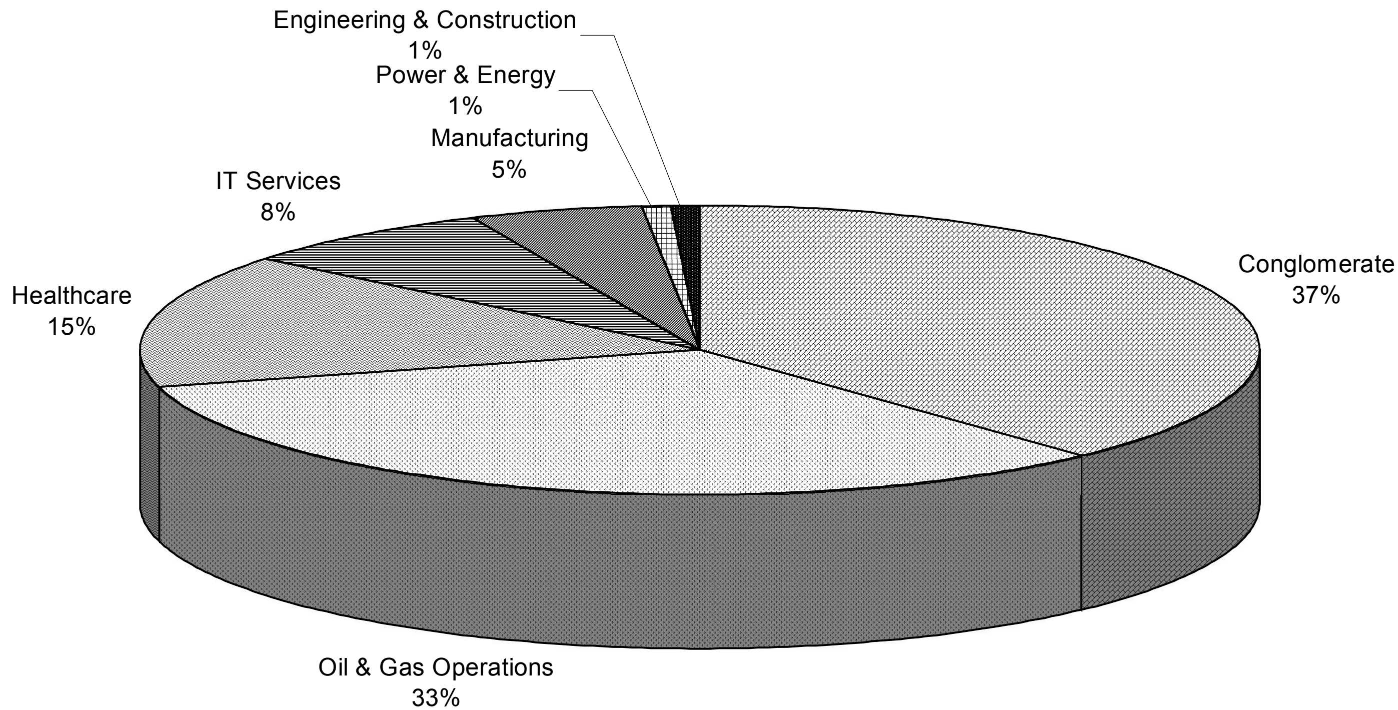
Efficiency seeking: Investment that firms expect will increase their efficiency by, for example, giving them access to cheap labor or exploiting the benefit of economies of scale and scope, and also those of common ownership.

Asset seeking: Investments made to augment or protect existing firm-specific advantages, such as knowledge and skills, trade-marks or R&D facilities.

Sector / Impetus	Market Seeking	Resource Seeking	Efficiency Seeking	Asset Seeking	Companies
Conglomerates	✔	✔	✔	✔	Tata Group, Videocon Industries, Max India
Healthcare & Pharmaceuticals	✔	✔	✔	✔	Ranbaxy, DRL, Sun Pharma, Piramal Healthcare, Biocon,
IT Services	✔	✔		✔	Patni, Hexaware Tech, I-Gate, NIIT, Infosys, HCL, Wipro, Birlasoft
Manufacturing	✔		✔	✔	Mahindra, Raymond Ltd, Hindalco, Bharat Forge
Oil & Gas Operations	✔	✔	✔		Reliance Industries Ltd, ONGC
Engineering & Construction		✔	✔		Larsen & Toubro
Power & Energy	✔	✔	✔	✔	Suzlon Energy

Source: Indian School of Business-Vale Columbia Center ranking of Indian multinationals.

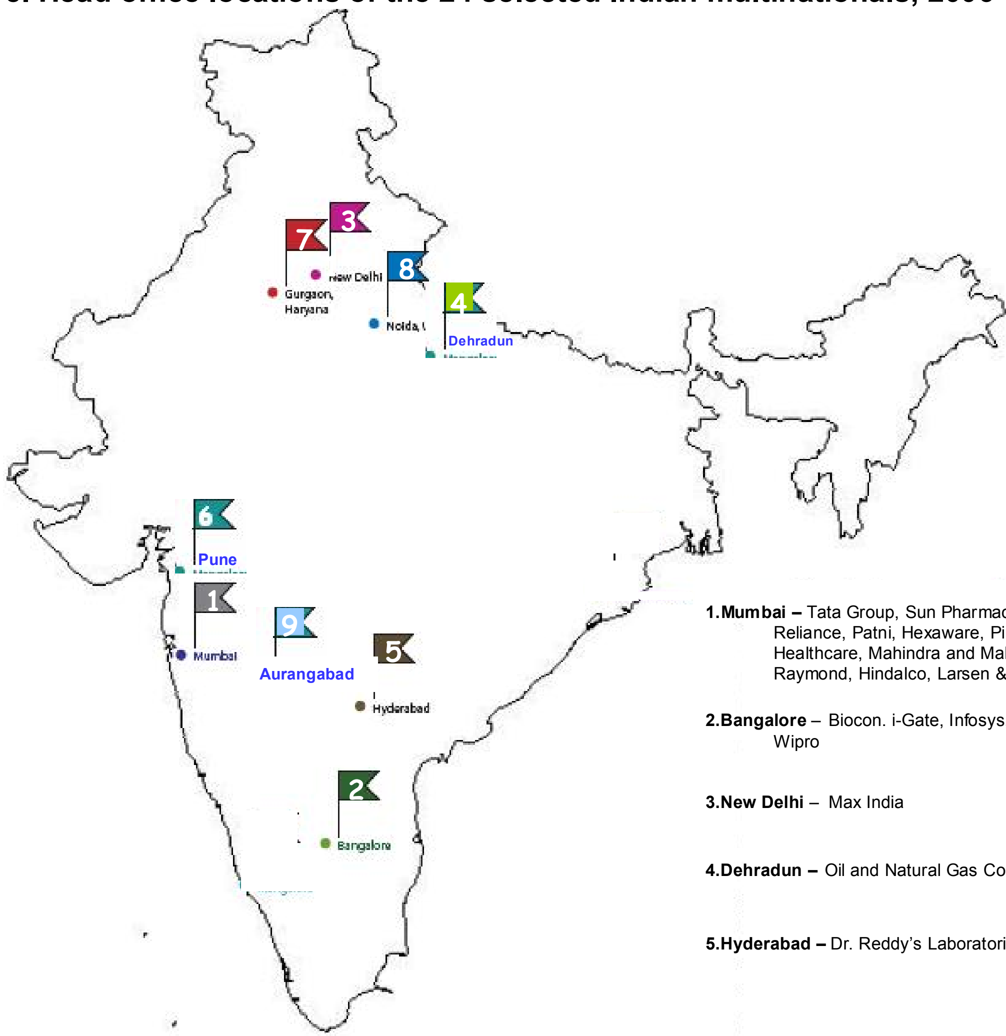
Annex figure 4. Breakdown of the foreign assets of the 24 selected Indian multinationals, by industry, 2006



Industry	Foreign assets USD mn	Companies
Conglomerates	5,832	(3) Tata Group Of Companies, Videocon Industries Limited, Max India Limited
Oil & gas operations	4,974	(2) ONGC Limited, Reliance Industries Limited
Pharmaceuticals & healthcare	2,303	(5) Ranbaxy Pharmaceuticals Limited, Dr. Reddy's Laboratories, Sun Pharmaceutical Industries Limited, Piramal Healthcare Limited, Biocon Limited
IT services	1,165	(8) Wipro Technologies, Patni Computer Systems, Hexaware Technologies Limited, i-Gate Global Solutions Limited, NIIT Limited, Birlasoft Limited, Infosys Technologies Limited, HCL Technologies Limited
Manufacturing	740	(4) Hindalco Industries Limited, Bharat Forge Limited, Mahindra & Mahindra Limited, Raymond Limited
Power & energy	135	(1) Suzlon Energy Limited
Engineering & construction	130	(1) Larsen & Toubro Limited

Source: Indian School of Business-Vale Columbia Center survey of Indian multinationals.

Annex figure 5. Head office locations of the 24 selected Indian multinationals, 2006



1.Mumbai – Tata Group, Sun Pharmaceuticals, Reliance, Patni, Hexaware, Piramal Healthcare, Mahindra and Mahindra, Raymond, Hindalco, Larsen & Toubro

2.Bangalore – Biocon. i-Gate, Infosys, Wipro

3.New Delhi – Max India

4.Dehradun – Oil and Natural Gas Corporation

5.Hyderabad – Dr. Reddy's Laboratories

6.Pune – Bharat Forge, Suzlon Energy

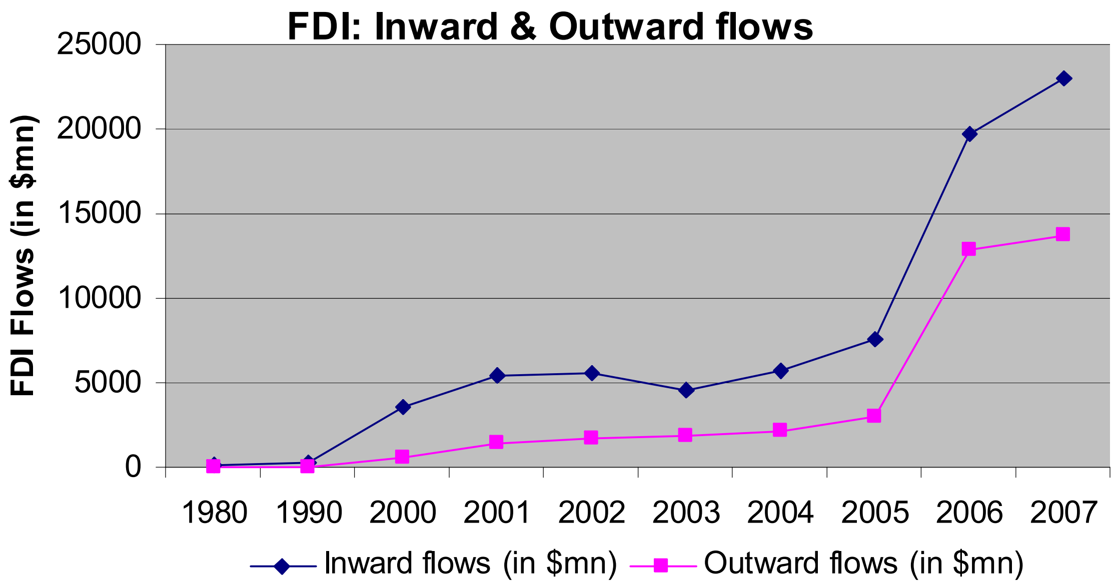
7.Guragaon– Ranbaxy, NIIT Limited

8.Noida – Birlasoft, HCL Technologies

9.Auranagabad– Videocon Industries

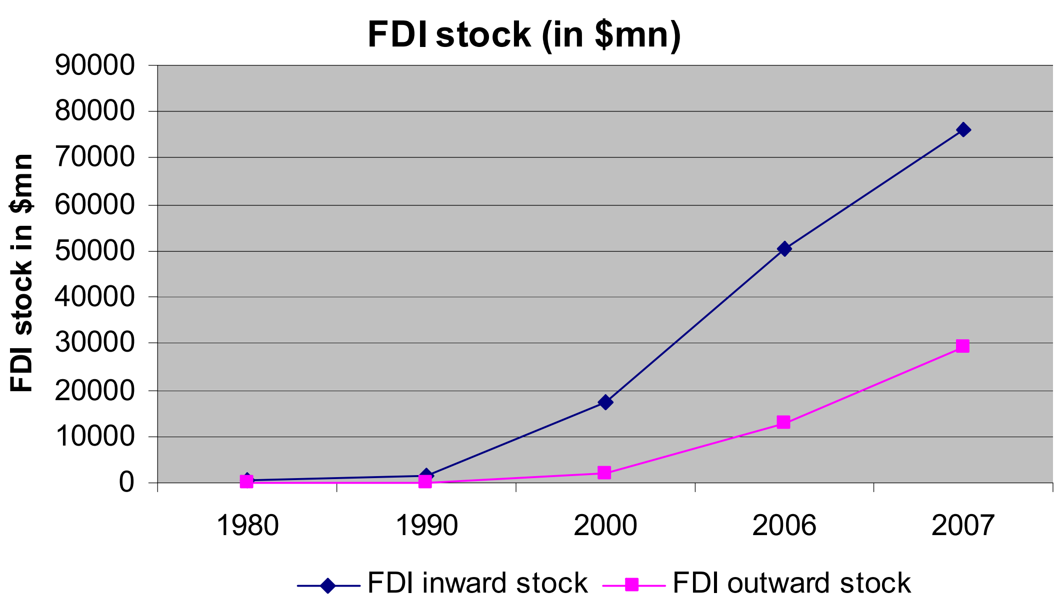
Source: Indian School of Business-Vale Columbia Center survey of Indian multinationals

Annex figure 6. FDI inflows to and outflows from India, 1980-2007 (millions of USD)



Source: UNCTAD, *World Investment Report, 2007,* p. 253, for figures for 2004; and *World Investment Report, 2008*, p. 255, for figures for 2005, 2006 & 2007.

Annex figure 7. Stock of inward and outward FDI, 1980-2007 (millions of USD)



Source: UNCTAD*, World Investment Report, 2008*, p. 259.