FDI Outflows from India: An Examination of the Underlying Economics, Policies and their Impacts

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Abstract

This paper discusses the trends in India's outward FDI over the last decade and then attempts to identify the driving factors for the same. The aim is to provide policy makers with insights regarding levers which would help in encouraging FDI outflows and to stimulate further research in foreign investment from emerging economies. The analysis is based on 287 instances of foreign investment from India by top Indian companies across 17 sectors. The paper draws on the "eclectic" paradigm to study the impact of ownership, location and internalization variables on India's foreign investment. A sector wise analysis of mode of entry, intent of entry and geographic concentration has been performed. At an aggregate level, it has been found that acquisitions have been the predominant mode of entry for Indian firms investing abroad and seeking new markets the primary intent of investment. A regression model was also developed to understand the impact and relative importance of owndership variables such as distribution system, need for resources, factor of production, post sales service requirement, presence of IP and brand on foreign investment from India. It was found that high distribution expenses and need for resources had a very positive influence on foreign investment. The paper also discusses the key policy changes that impacted outward FDI from India in the last decade and relationship of outward FDI with other macroeconomic indicators such as GDP and Fischer Open Differential.

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Objective of the Study

Most of the studies pertaining to FDI flows in emerging markets including India deal primarily with FDI inflows into these countries. A lot of attention has been paid in both media as well as academic literature on these flows with high growth trends in economies such as BRIC and Latin America being attributed partially to such FDI inflows. As emerging economies experience robust growth, home grown corporations from these countries are increasingly becoming confident to venture out into foreign markets for various reasons including gaining access to technology, access to resources and/or markets. Firms can also enter foreign economies to utilize existing intellectual property which gives them a competitive advantage over incumbent competitors.

We would like to study outward FDI flows from emerging economies, specifically in the Indian context. An examination of FDI flows from various sectors of the Indian economy would be carried out. Based on emerging trends of these flows, hypothesis would be developed and tested to explain the underlying drivers in the light of India's liberalization and more recently, its strategic and economic needs in view of its position in the global economy. Apart from providing qualitative rationale behind these flows, we would also carry out some statistical regression for validation.

We hope that dissemination of this study would provide policy makers with insights regarding levers which would help in encouraging FDI outflows and provide confidence to firms planning to venture abroad. We also hope to stimulate further research on this topic with the study aimed at being used as a beginning point for a more detailed study aimed at generating further research and policy guidelines. A secondary objective is that we hope to go through a learning curve about the research process in general and in economics specifically as we consider future careers in research.

CLASSICAL THEORIES OF FDI FLOWS

The seminal paper on FDI outflows is the one by Dunning which explains the same through the OLI (Ownership, location and internalization) framework. This paradigm explains the rationale behind FDI by multinationals from developed economies into both developed as well as developing economies.

An examination of several recent theories advanced to explain foreign direct investments helps us understand the drivers for FDI.

DUNNING'S OLI PARADIGM

OWNERSHIP

A foreign firm faces several disadvantages vis-à-vis an entrenched incumbent domestic firm when it enters a market outside its country of origin. These include transaction costs stemming from lack of local knowledge, lack of distribution networks and established brands in the foreign country, legal, cultural and language barriers and increased costs of co-ordinating from a remote location. However, a firm chooses to enter a foreign market if it has several advantages which outweigh the disadvantages outlined above. These include access to natural resources, intellectual property, strong domestic / global brand and other core competencies which become a source of competitive advantage over the incumbent firms.

LOCATION

The location specific paradigm involves the attractiveness of the foreign market as a destination for entry by a firm. There can be three ways by which a foreign market can differentiate itself from others –

1. Economic – Size of the foreign market, growth rate, market concentration, infrastructure, availability of talent, competitive cost structures etc

2. Political – These include the political risk of the country, the judicial mechanisms and how transparent the judicial system is, labour laws, ease of doing business etc
3. Social – These include similarities of culture, ways of doing business, social structure between the country of origin of the firm and the foreign country etc.

INTERNALIZATION

Firms have to choose between various modes of entry into foreign markets ranging from licensing and marketing alliances to full blown acquisitions and green-field ventures. These decisions are made keeping in view the trade-off of transaction costs versus internalization costs which include costs of acquiring new capabilities and resources. In poorly functioning markets firms prefer to internalize to avoid high costs of external transactions. Regulatory intensity of the foreign market is another parameter which determines the internalization decision.

HYMER'S IMPERFECT MARKETS THEORY

Hymer's theory postulates that MNEs are a creature of market imperfections. There are two main causes of these imperfections – removal of competition and monopolistic powers. Hymer states that investing abroad gives MNE the ability to use its international operations to separate markets and hence reduce competition. MNEs control assets to minimize risks and this gives them monopolistic power by creating entry barriers. Hymer's entire analysis is based on structural imperfections which arise out of scale economies, knowledge advantages, distribution networks, product diversification and credit advantages. He misses out on transactional imperfections which pave way for vertical integration and internalization of transactions by the MNE.

ALIBER'S MODEL

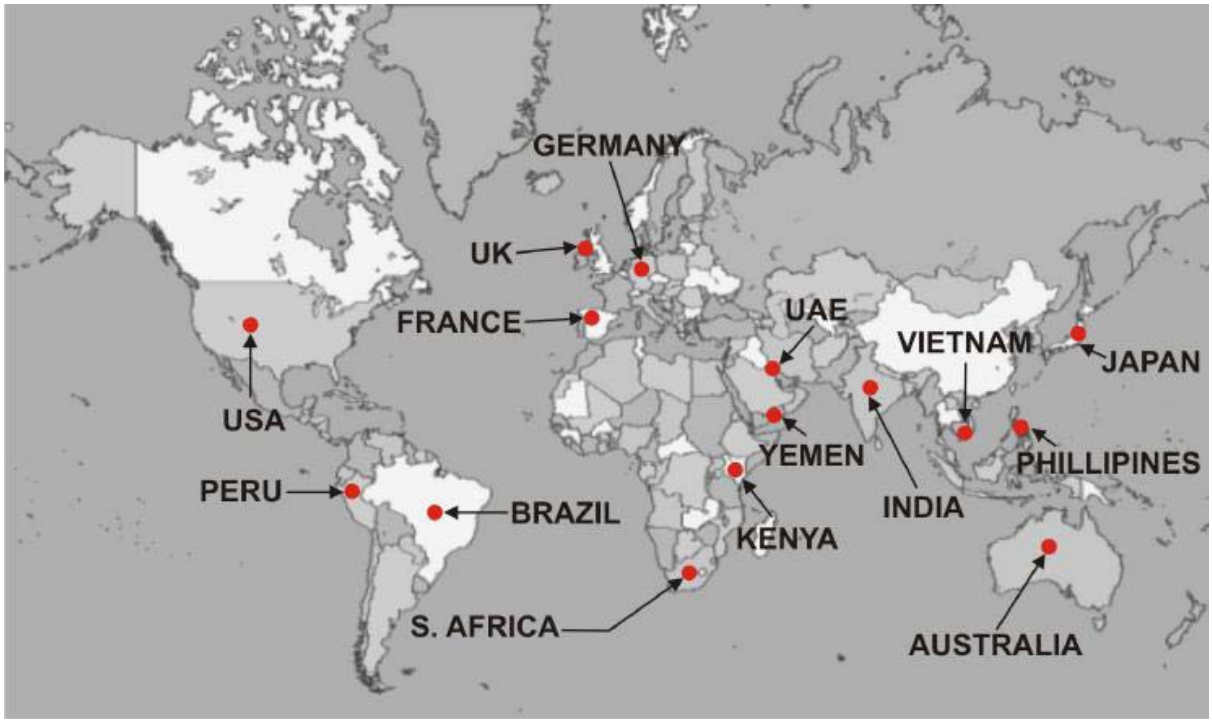
Aliber's theory says that MNCs invest in foreign assets because they give the MNC the ability to hold assets in different currencies and thus take advantage of structural and transactional imperfections in international capital and foreign exchange markets. He proposes that the firm will face the same operational challenges abroad as domestically and that is not a decision making criterion for firms.

VERNER'S LOCATION THEORY

Vernon's location theory says that a multinational enterprise is often in a position to acquire resources at a cost lower than that of national enterprises as the cost to a MNE is just the marginal cost to the system due to which optimal location decisions generated by MNEs would be different from a group of national enterprises. This will result in NEs acquiring factor inputs and resources at a cost prevalent in the home country while MNEs will acquire them at the best price worldwide. This difference between national cost and marginal cost will be a key driver of FDI worldwide.

LUPIN: A CASE STUDY

Lupin is one of the largest and fastest growing pharmaceutical companies in India. It is present in more than 70 countries. The picture below shows Lupin's global footprint.



The authors wanted to explore the recent vehicles used by Lupin to expand abroad to understand its international expansion drivers from the eclectic paradigm.

To examine this, as a first step, the authors gathered data on the various vehicles such as alliances, acquisitions, minority stakes etc used by Lupin in the last 5 years to expand abroad shown in the table below. This enabled us to draw several qualitative conclusions which has been structured using Dunning's OLI framework.

The table below shows the vehicles used by Lupin to achieve an international footprint. Lupin has used a mix of international expansion strategies which reflect the need and stage in the growth life cycle of Lupin itself.

Year	Type of expansion abroad	Country	Company	Rationale
2009	Acquisition	Philippines	Multicare Pharmaceuticals	Marketing network for generics in Philippines
2009	Acquisition of portfolio of brands	USA	Multiple	Strengthening product portfolio in USA
2008	Acquisition	South Africa	Pharma Dynamics	Established brand portfolio and supply chain access in SA
2008	Minority Stake (30%)	Australia	Generic Health	Marketing network for generics in Australia
2008	Marketing Alliance	USA	Forest Labs	Leveraging its own US marketing network
2008	New product launch	Japan		Expanding its product basket in Japan
2008	Acquisition	Germany	Hormosan Pharmaceuticals	Marketing network for generics in Europe
2007	Acquisition	Japan	Kyowa Pharmaceuticals	Strengthening foothold in the Japanese generis market
2007	Acquisition	India	Rubamin Labs	Acquiring capabilities in contract research and manufacturing services
2006	Minority stake	Belgium	Dafra	Acquiring a new portfolio of products
2006	Joint Venture	South Africa	Aspen	Acquiring a new portfolio of products
2006	Supply agreement	Philippines	GSK Philippines	Marketing arrangement
2006	Co-promotion	USA	Cornerstone BioPharma	Co-promotion – increasing reach
2005	Marketing alliance	USA	Allergan	Leveraging its own US marketing network

Lupin represents the new age Indian firm which is prepared to expand its international footprint and invest abroad.

The Chairman of Lupin in his statement in the Annual Report 2008-09 has mentioned acquisitions as a cornerstone in his strategy to take Lupin global:

"What has differentiated us in our approach is that all our acquisitions have been strategic and value-based in nature, from creating beachheads in key markets that we have identified, to enabling entry into new therapy segments. The inorganic pieces of our business have been welded together with the parent company to create operational synergies, backed by strong financial logic that these acquisitions would add value both, in the near as well as in the long term."

From the above bold statement from Lupin's Chairman, Mr. Gupta and from the table above we can see that that there is an overall trend from conservative vehicles in 2005 – 2007 where Lupin entered into co-promotion and marketing alliances with various firms in both developed and developing countries. As Lupin gained in confidence and developed expertise in operating in international markets it has moved away from a pure marketing based alliance and need for selling its existing product portfolio in new markets to an organic acquisition based strategy. This clearly shows the strategic shift by Lupin which marks a new found confidence and aggression riding on its past successes.

We can analyze Lupin's international footprint through Dunning's OLI (Ownership Location and Internalization) paradigm.

OWNERSHIP

Lupin has several advantages of ownership that include the cost arbitrage between India and developed countries as all of Lupin's manufacturing plants initially were located in India. From the international footprint table of Lupin it is clear that Lupin wanted to leverage this cost arbitrage internationally by entering into strategic marketing alliances with firms, for example Cornerstone in the US. Apart from that, it also wanted to deploy and sell its product portfolio which it believed was equal to that of any other generics player in the specific foreign market due to which it expanded into that particular market. Lupin considers itself strong in both API and formulations

verticals of the generics industry. Interestingly, by 2005 Lupin had also developed its own sales team in USA which became a source of ownership advantage because it leveraged this to market products of other firms, for example – Allergan in USA.

LOCATION

From the above table, it is evident that USA remains the destination of choice for Lupin to grow internationally. This is because USA is the world's largest and wealthiest pharmaceutical market accounting for about half of the global market in sales. However, it is also one of the most competitive markets in the world. Lupin had entered the US market through a subsidiary using its own sales team to promote its products. However, now it is leveraging the same team to sell other companies' products which demonstrates the kind of transformation that Lupin has undergone and how the company has grown from strength to strength. Apart from economic advantages, US market also has negligible political risk, one of the best judicial systems in the world and is a place where it is easy to conduct business. The US is also the cradle of capitalism encouraging everyone who has the requisite skill-sets and products to set up shop in a free market environment.

Apart from US, Lupin has also entered Germany, Japan, South Africa and Australia which are markets similar in terms of social, economic and political construct to the USA. The entry into Philippines reflects the higher risk taking ability of Lupin and its skill in leveraging the ownership and location variables to the fullest keeping in mind its existing capabilities.

INTERNALIZATION

Lupin has started off by using pure marketing alliances in markets such as US where such transaction costs are low. However, the possibility of leveraging marketing as

strategic asset to its competitive advantage has prompted Lupin to internalize marketing and in fact it has successfully done so, one example being the alliance with Forest Labs. This recognition has also prompted Lupin to move from a strategic alliance or an organic entry to entry via acquisitions where it is willing to pay a premium for acquiring an existing distribution network which can be leveraged for quick deployment of its flagship formulations and other products.

Thus, as seen from the OLI paradigm Lupin is set to emerge as a transnational enterprise from a purely Indian operation leveraging its ownership resources of low cost manufacturing and acquired R&D capabilities, tuning its strategies to enter markets with best location advantages and using its core competencies to internalize key functions and actually monetising these strategic assets.

EMERGING THOUGHTS IN ACADEMIC LITERATURE

In recent years FDI outflows from emerging economies such as India and China have become quite prominent in the global context. MNCs in these countries do not have the kind of competitive ownership advantage say, quality, technology etc in the global context. Their global expansion through FDI is driven by the motivation to establish a global footprint and access to technology and resources as explained in the LLL (Linkage, Leverage and Learning) framework by Matthews. Their basis of competition in the global arena is different from that proposed by Dunning.

The LLL framework is quite successful in explaining the trends in FDI outflows for the East Asian economies of Malaysia, Korea, Hong Kong, Singapore and Thailand. FDI outflows from India are quite different from East Asian economies both structurally and inter temporally. FDI outflows from India have accelerated only in the last decade post liberalization while those from East Asia have been taking place for more than 20 years. Government policies in India as well as strong domestic growth are some of the key factors which have given confidence to Indian firms to pursue acquisitions abroad through the FDI route.

SCOPE OF THE STUDY

The scope of the study is restricted to analyzing the dependence of foreign investment on ownership variables only and not location and internalization variables. Additionally, the scope of the study was restricted owing to the lack of availability of data on foreign investment by Indian firms. Therefore, 287 instances of foreign investment from India were manually collected and documented for the purpose of this study. The data spans across 17 sectors as will be discussed later. The lack of data posed several restrictions on the scope of the study such as:

- It was not possible to perform trend analysis over the years for foreign investment from India
- The percentage stake was available for only 100 of the 287 records while size of the investment was available only for 65 of the 287 records documented. A Logit analysis with percentage stake or value of investment as the dependent variable was therefore ruled out.
- Only Logit regression was possible on the available data, which has a binary variable as a dependent variable (0 = not an instance of FDI, 1 = instance of FDI). A more granular analysis with multinomial logit (where the dependent variable could take multiple values – for instance – different values for JV, minority stake, majority stake and Greenfield) could have brought more insights but was not possible to conduct the same with limited amount of data.

INDIA'S OUTBOUND FDI: TRENDS AND EMPIRICAL DATA

A majority of India's outbound FDI flows has been as a consequence of a quest for raw materials since India is a raw material scarce country. For example, Tata Steel has been active to secure coal assets in Indonesia with superior grade coal due to lack of high quality coal in the country coupled with a highly regulated industry where private players are not allowed. The Pharmaceutical sector has gone on an acquisition spree mainly for IP and access to markets including distribution networks as amply demonstrated in the Lupin case study.

A lot of India's FDI outflows in recent times have been in acquisitions in the IT and IT services sectors. Indian enterprises have developed expertise and capabilities in IT services which they want to leverage and enter global markets. This is because of opportunities to acquire newer clients at lower costs as a consequence of a booming local stock market and low P/Es in economies abroad. For example HCL Technologies completed the acquisition of Axon for 440 million pounds. India's FDI flows in recent times has been to acquire crude oil assets in a bid to secure the energy needs of the country through ONGC Videsh Ltd., a partnership between ONGC and Mittal Steel.

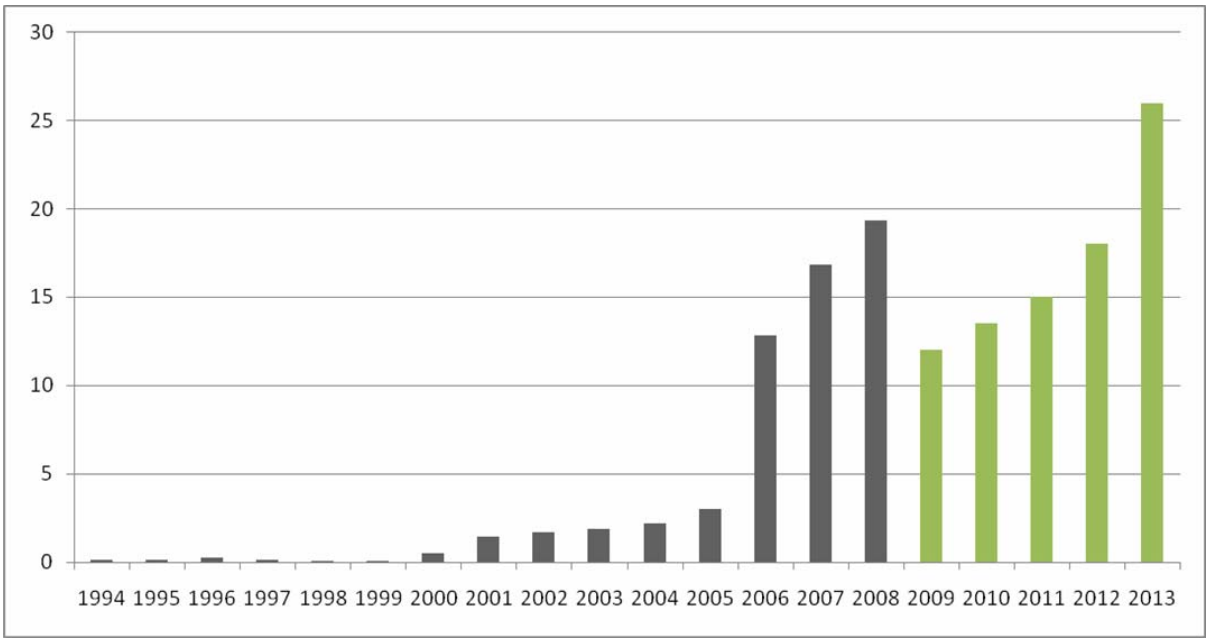


Figure 1: FDI outflows are expected to double over the next 5 years with a CAGR of 16.7%

Table 2: India's Foreign Direct Investment Inflows and Outflows (US $ Millions)

Year	Inward FDI	Outward FDI
1995	2125	119
1996	2525	240
1997	3619	113
1998	2633	47
1999	2168	80
2000	3585	509
2001	5472	1397
2002	5627	1669
2003	4323	1879
2004	5771	2179
2005	7606	2978
2006	19622	12842
2007	22950	13649
Total	88052	37711

Source: UNCTAD (2008).

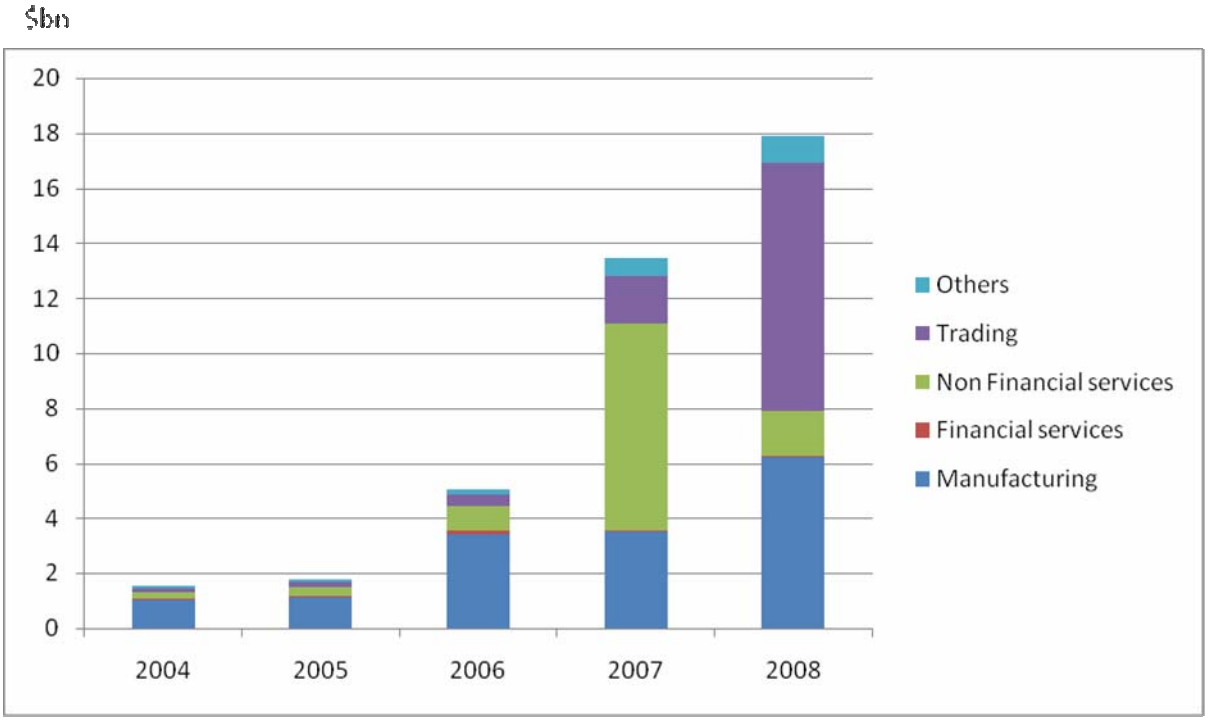


Figure 2: Graph showing the FDI outflow from India over the last 5 years

Manufacturing has seen a consistent growth over the last five years. This has especially been driven by sectors such as automotive components and machine tools which are export oriented and acquire firms for access to technology and clients, especially in markets such as Europe where client contracts are long term and it is otherwise difficult to get access.

The Non financial services and Trading sectors have seen wide fluctuations in outward flows. Others include pharmaceutical and FMCG industries which are anyway cyclical and one might be acquisition hungry during up-trends in the sector and conservative during down-trends.

RESEARCH QUESTIONS

- To what extent is India's FDI seeking ownership advantages?
    - Differences in developed and developing countries – for instance, FDI to developed countries could be driven by location advantages such as wages, exports or market potential, while those to developing countries could be driven by ownership advantages such as resources or raw materials.
    - Sector wise analysis to examine if ownership advantages drive FDI in certain sectors

- What is the mode of entry for foreign investments from India?

- What is the objective of FDI from India?

- Whether past international experience or exports determines if a company will go for FDI and in what mode would it choose to go for?

RESEARCH METHODOLOGY

The research has been conducted using the outward modes of entry of India's top firms – identified by the virtue of them being in the Nifty 50 stock index or large private firms which have chosen to remain unlisted. A large number of data points of the FDI outflows have been gathered (about 300) using press releases from the firms' websites and annual reports, news articles and clippings, databases such as Thompson Reuters and Capitaline, industry forums and various other sources. The independent variables of ownership, location and internalization which will be described in further detail have been identified and estimated for every sector by taking the market capitalization weighted averages for each variable for the top companies in that sector. These have been filtered by virtue of their sales, with those having sales greater than 100 crores making it to the final list of firms. This data has been gathered from Center for Monitoring of Indian Economy (CMIE). The sector definitions were used as defined by CMIE and for the purpose of this study, number of sectors was restricted to 17 as shown in Table 1 below. Table 1 also enumerates the number of instances of foreign investment documented for a particular sector:

	Number of instances
IT	36
Pharmaceuticals	37
Auto Components	20
Construction	32
Telecom	28
Petroleum Products	7
Oil & Gas Mining	24
Steel	20
Dyes	4
Paints	3
Machinery/Capital Goods	14
Non Ferrous Metals	2
Auto	30
Cosmetics, toiletries, etc.	8
Tyres & Tubes	6
Diversified	1
Food Products	15
TOTAL	287

Table 1: Number of instances of foreign investment by each sector under study

We have restricted the scope of the research to determining the impact of ownership variables on FDI outflows from India. Two types of research have been conducted on these variables – qualitative and quantitative. The qualitative portion includes the general trend of FDI flows, which has been dissected on modes of entry and analyzed for specific trends within sectors. We have also tried to provide the general reader with a basic analysis of the rationale behind such trends in different ways especially through Dunning's eclectic paradigm. This explains why different sectors use different routes for entering into foreign markets – it is seen for example that pharmaceutical companies enter through alliances while manufacturing companies go for full blown acquisitions and IT firms do both routes depending on their objectives. For quantitative analysis, this is done under the broad umbrella of determining whether there is an overall pattern to the outward flow of investment from India. Another interesting analysis has been done based on the lifecycle of the firm. As seen in the above case-study, it has been found that firms, in the early part of their "invest abroad" cycle with little experience tend to form alliances or joint ventures while venturing into a foreign market but gradually move towards Greenfield or full blown acquisitions after gaining experience whether positive or negative from previous forays into markets abroad. The mode of entry might also depend on the risk appetite of the management but this is outside the scope of this study.

The quantitative portion of the study has been carried out through a binomial logistic regression. The output variable has been taken to be the entry mode which has been assigned 1 in case of a 100% acquisition or Greenfield entry and 0 in any other case. The independent variables are the ownership ones as described in the next section. This enables us to test the hypothesis about which ownership variable is most influential in driving companies to venture abroad. Due to constraints imposed by lack of data from RBI and other accredited Government of India agencies, the study has been restricted in both scale and scope.

VARIABLES INVOLVED

The independent variables can be classified into three buckets – ownership, location and internalization.

OWNERSHIP VARIABLES

Characteristics	Measured By	
Need for resource	Percentage import/Total consumption of resource	Product/sector characteristic
Post sales service requirement	Ratio of revenue from services	Product/Sector characteristic
Factor of production	Capital/Labour ratio	Product/Sector characteristic
Presence of Intellectual Property	R&D as a percentage of sales BV of patents/trademarks on the balance sheet	Firm characteristic
Distribution system	Distribution expenditure by sales ratio	Firm characteristic
Brand/Product Differentiation	Advertising/Sales Ratio	Firm characteristic

LOCATION VARIABLES

Characteristics	Measured By	
Size of the target country's market	Market size	Country characteristic
Market growth potential	Last year's growth rate or projected growth rate for product/sector	Country characteristic
Market Concentration	Market share occupied by top "x" firms in target country and host country	Product/Sector characteristic
Past international experience	Export level for the product to the host country	Firm characterisitic
Cultural Distance	Hofstead Dimension	Country characteristic
Country risk (for instance, a company having operations in a politically stable country)		
Capital market structure	P/E differential	Country characteristic
Proximity to markets	Transportation cost/sales	Country characteristic

Wage	Differential of wage w.r.t host country	Country characteristic
Interest rates	Fischer Open Differential	
Export of product	Percentage of foreign earnings for the sector	Product/Sector characteristic

INTERNALIZATION VARIABLES

The internalization variables include information asymmetry, transaction costs and transfer pricing methodologies followed by firms. Research is still going on to determine which would be the best proxy for such kinds of variables or what data needs to be collected for this purpose.

POLICY VARIABLES

Characteristics	**Measured By**	
Foreign exchange control	Coding for different levels of deregulation	Country characteristic
Regulatory intensity of the target country	Customized index	
Exchange rate fluctuation	Exchange rate volatility index	

DEPENDENT VARIABLE

We plan to use the Logit model for regression which is the most widely used model in FDI studies we went through. With this in mind, we came up with the following consideration set for the dependent variables:

- Whether the firm is setting up a new venture or going for acquisition (binary)
- Amount of control the firm has – majority or minority stake (less than 50% stake coded as '0' and greater than 50% stake coded as '1')
- Kind of financing for the acquisition – debt vs. equity (for example, for less than 50% debt – 0 and 1 vice versa)
- Value of FDI above a certain threshold – 0 or 1

Due to data constraints, the final variable selected was the first one and the study carried out was on the factors which influenced firms to go for a full blown acquisition or Greenfield over an alliance or a JV in the form of a binary logistic regression, the output and analysis are shown in subsequent sections.

HYPOTHESIS TESTING

The research questions were translated into the following hypothesis, which were then tested using statistical analysis:

- Hypothesis 1: Whether FDI is the preferred mode of entry for foreign investment by Indian companies
- Hypothesis 2: Whether the intent of foreign investment by Indian companies is market seeking, product, brand or technology seeking or resource seeking
- Hypothesis 3: Whether foreign investment by Indian companies is directed more towards high income countries as well as if foreign investment by Indian companies is concentrated in certain geographic areas.
- Hypothesis 4: To what extent does and ownership variable impact the incidence of FDI.
- Hypothesis 5: To what extent is FDI impacted by Fischer Open Differential
- Hypothesis 6: Whether FDI is correlated with other macroeconomic indicators such as non agricultural GDP

HYPOTHESIS 1: MODE OF ENTRY

A total of 287 instances of foreign investment out of India were classified into the following categories:

- **Greenfield:** Signifies the opening up of a new branch, office or setting up of a new wholly owned subsidiary in the target country
- **Alliance:** Alliances refer to arrangements such as MoU signed with the universities for technological research
- **Joint Venture**
- **Expansion:** The mode of entry is considered as expansion when the instance is not the first instance for the company in the country under consideration and signifies expansion of its existing operations such as opening up of a new office.
- **Acquisition:** The mode of entry is considered as an acquisition if the Indian company acquired assets of a foreign company or acquired a majority stake in the equity of a foreign company.
- **Minority Stake**

As can be seen from Figure 3, the predominant mode of entry for India firms has been acquisitions accounting for 33.80% of the total Indian outward investment from the instances studied. This is closely followed by joint ventures, Greenfield operations and further expansion which account for another 19.86%, 17.07% and 16.03% respectively. Table 2 presents a detailed sector wise picture of the instances studied based on mode of entry.

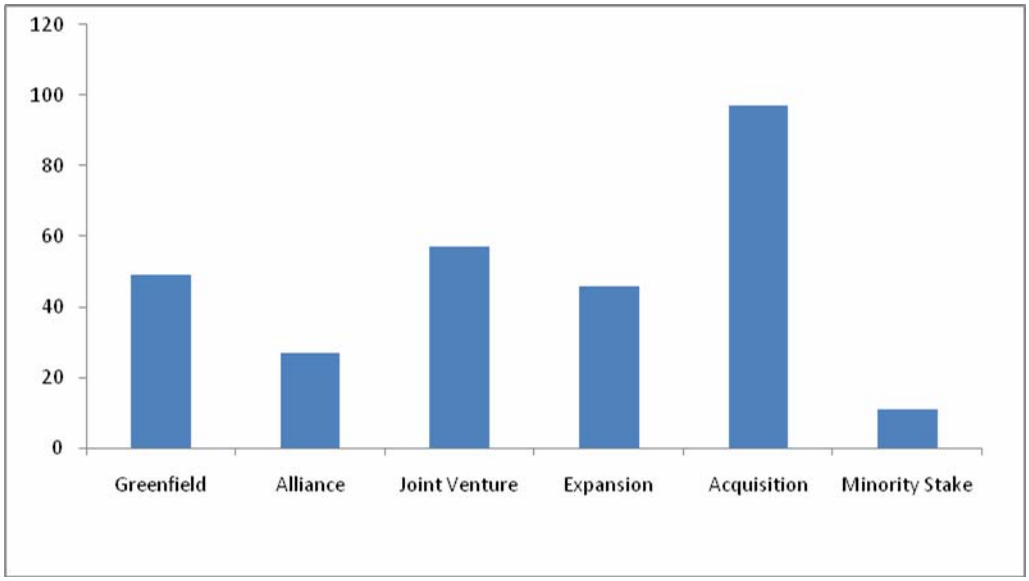


Figure 3: India's outward direct investment based on mode of entry

Sector Wise Frequency of Different Types of Modes of Entry							
	Greenfield	**Alliance**	**Joint Venture**	**Expansion**	**Acquisition**	**Minority Stake**	**Total**
IT	16	7	3	4	6	0	**36**
Pharmaceuticals	4	3	1	11	17	1	**37**
Auto Components	2	0	5	0	12	1	**20**
Construction	0	1	0	28	3	0	**32**
Telecom	4	0	17	2	5	0	**28**
Petroleum Products	4	0	0	0	1	2	**7**
Oil & Gas Mining	10	9	1	0	2	2	**24**
Steel	4	5	4	1	3	3	**20**
Dyes	0	0	2	0	2	0	**4**
Paints	0	0	1	0	2	0	**3**
Machinery/Capital Goods	0	0	5	0	9	0	**14**
Non Ferrous Metals	0	0	0	0	2	0	**2**
Auto	2	2	12	0	13	1	**30**
Cosmetics, toiletries, etc.	1	0	1	0	6	0	**8**
Tyres & Tubes	2	0	0	0	4	0	**6**
Diversified	0	0	1	0	0	0	**1**
Food Products	0	0	4	0	10	1	**15**
TOTAL	**49**	**27**	**57**	**46**	**97**	**11**	**287**
Percentage	**17.07%**	**9.41%**	**19.86%**	**16.03%**	**33.80%**	**3.83%**	**100.00%**

Table 2: Sector wise break up of foreign investment from India based on mode of entry

Due to paucity of data, a detailed sector wise analysis to identify trends within each sector in terms of mode of entry could not be done. However, based on the data available, a sector wise analysis further reveals following trends (see Table 3):

- Acquisitions are most common modes of foreign investment in case of auto & auto components, pharmaceuticals, capital goods, cosmetics & food products and tyres & tubes.
- Greenfield investments are predominant mode of investment in case of IT, Petroleum Products and Oil & Gas Mining.
- In case of telecom, joint ventures are predominant accounting for around 60.71% of the entire foreign investment of telecom companies
- In case of Construction companies most instances were that of expansion of existing foreign operations

Based on above analysis, sectors most likely to exhibit foreign direct investment include auto & auto components, fast moving consumer goods, technology based companies such as IT, pharmaceuticals and capital goods.

Sector Wise Percentage of Different Types of Modes of Entry							
	Greenfield	Alliance	Joint Venture	Expansion	Acquisition	Minority Stake	No of instances
IT	44.44%	19.44%	8.33%	11.11%	16.67%	0.00%	36
Pharmaceuticals	10.81%	8.11%	2.70%	29.73%	45.95%	2.70%	37
Auto Components	10.00%	0.00%	25.00%	0.00%	60.00%	5.00%	20
Construction	0.00%	3.13%	0.00%	87.50%	9.38%	0.00%	32
Telecom	14.29%	0.00%	60.71%	7.14%	17.86%	0.00%	28
Petroleum Products	57.14%	0.00%	0.00%	0.00%	14.29%	28.57%	7
Oil & Gas Mining	41.67%	37.50%	4.17%	0.00%	8.33%	8.33%	24
Steel	20.00%	25.00%	20.00%	5.00%	15.00%	15.00%	20
Dyes	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	4
Paints	0.00%	0.00%	33.33%	0.00%	66.67%	0.00%	3
Machinery/Capital Goods	0.00%	0.00%	35.71%	0.00%	64.29%	0.00%	14
Non Ferrous Metals	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	2
Auto	6.67%	6.67%	40.00%	0.00%	43.33%	3.33%	30
Cosmetics, toiletries, etc.	12.50%	0.00%	12.50%	0.00%	75.00%	0.00%	8
Tyres & Tubes	33.33%	0.00%	0.00%	0.00%	66.67%	0.00%	6
Diversified	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	1
Food Products	0.00%	0.00%	26.67%	0.00%	66.67%	6.67%	15

Table 3: Sector wise percentage distribution of mode of entry

HYPOTHESIS 2: INTENT OF INVESTMENT

There predominant intents for investing abroad were identified as follows:

- Market Seeking: Market seeking investment is driven by gaining access to local or regional market and investing locally could help prevent some operational costs such as those of distribution.
- Technology or Brand Seeking: Firms may also invest in order to gain access to new technology or to acquire some brands or products.
- Resource Seeking: Resource seeking investment is driven by gaining access to natural resources.

Each of the 287 instances of foreign investment was then assessed based on available public information to identify the category it most suited. In certain cases, an instance of foreign investment was identified to have multiple characteristics or intents. For instance, a foreign investment could be made to both get access to a new market as well as to a new technology. In such case, an equal weight age was given to each of the intents: therefore, in this case both market seeking and technology seeking will get a score of 0.5. The results, thus obtained are compiled in Table 4.

Based on Intent				
	Market Seeking	**Technology/Brand Seeking**	**Resource Seeking**	**Total**
IT	25.50	10.50	0.00	**36.00**
Pharmaceuticals	24.17	7.17	5.67	**37.00**
Auto Components	13.00	5.00	2.00	**20.00**
Construction	31.00	0.00	1.00	**32.00**
Telecom	18.67	5.67	3.67	**28.00**
Petroleum Products	3.00	0.00	4.00	**7.00**
Oil & Gas Mining	1.50	5.00	17.50	**24.00**
Steel	6.00	4.00	10.00	**20.00**
Dyes	1.50	2.50	0.00	**4.00**
Paints	1.50	1.50	0.00	**3.00**
Machinery/Capital Goods	1.50	12.50	0.00	**14.00**
Non Ferrous Metals	0.50	0.00	1.50	**2.00**
Auto	8.50	21.00	0.50	**30.00**
Cosmetics, toiletries, etc.	2.50	5.50	0.00	**8.00**
Tyres & Tubes	5.00	1.00	0.00	**6.00**
Diversified	0.00	1.00	0.00	**1.00**
Food Products	5.50	9.50	0.00	**15.00**
TOTAL	**149.33**	**91.83**	**45.83**	**287**
Percentage	**52.03%**	**32.00%**	**15.97%**	**100.00%**

Table 4: Foreign investment based on intent of investment

Figure 4 summarized the intent of entry for the instances studied. As can be seen, the foreign investments made by Indian companies have been predominantly market seeking. Over 52% of the total investments made abroad qualify to be market seeking while 32% of the investments are made to seek new technologies, brands or products. Resource seeking investments form only 16% of the total investments made by Indian companies as a whole.

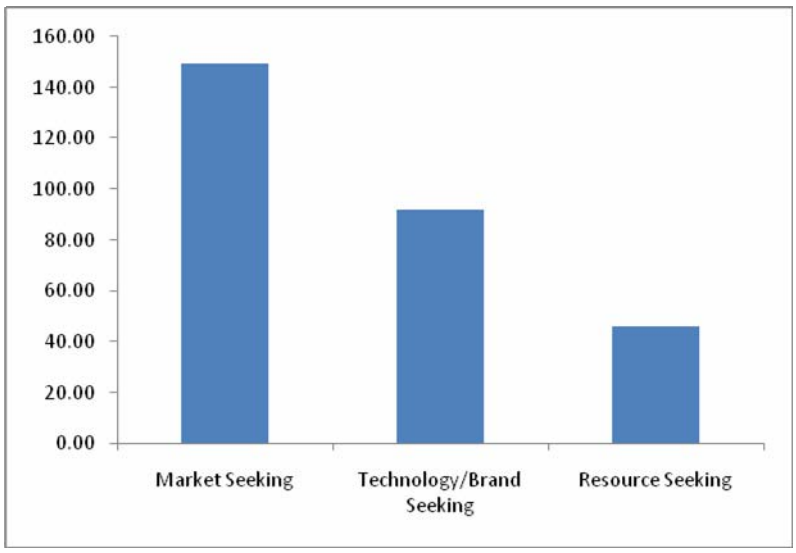


Figure 4: Foreign investment based on intent of investment

A sector wise analysis of the foreign investment offers more insights as follows (see Table 5):

- Market seeking foreign investment is the predominant intent in case of IT, pharmaceuticals, auto components, construction, telecom, and tyres & tubes.
- Technology or brand or new product seeking kind of foreign investment intent is predominant in case of capital goods, auto and toiletries and food products.
- As expected, oil and gas mining, petroleum products and non ferrous metals exhibit resource seeking as their predominant intent of foreign investment.

Based on Intent				
	Market Seeking	**Technology/Brand Seeking**	**Resource Seeking**	**No of instances**
IT	70.83%	29.17%	0.00%	**36**
Pharmaceuticals	65.32%	19.37%	15.31%	**37**
Auto Components	65.00%	25.00%	10.00%	**20**
Construction	96.88%	0.00%	3.13%	**32**
Telecom	66.67%	20.24%	13.09%	**28**
Petroleum Products	42.86%	0.00%	57.14%	**7**
Oil & Gas Mining	6.25%	20.83%	72.92%	**24**
Steel	30.00%	20.00%	50.00%	**20**
Dyes	37.50%	62.50%	0.00%	**4**
Paints	50.00%	50.00%	0.00%	**3**
Machinery/Capital Goods	10.71%	89.29%	0.00%	**14**
Non Ferrous Metals	25.00%	0.00%	75.00%	**2**
Auto	28.33%	70.00%	1.67%	**30**
Cosmetics, toiletries, etc.	31.25%	68.75%	0.00%	**8**
Tyres & Tubes	83.33%	16.67%	0.00%	**6**
Diversified	0.00%	100.00%	0.00%	**1**
Food Products	36.67%	63.33%	0.00%	**15**

Table 5: Sector wise percentage distribution for intent of investment

HYPOTHESIS 3: TARGET COUNTRY

The target countries of investment were classified based on two parameters:

- Income
- Continent

HYPOTHESIS 3.1: INCOME OF TARGET COUNTRY

Based on income, the target countries were classified into three categories (based on United Nations Human Development Report 2007-08):

- High Income: The high income countries are those with GNI per capita of USD 10,726 or more in 2005.
- Middle Income: These are countries with GNI per capita of USD 876 to USD 10,275 in 2005
- Low Income: These are countries with GNI per capita of USD 875 or less in 2005

Based on the above classification, India is categorized as a low income country.

The target country of the 287 instances of foreign investment was determined. The data is as shown in Table 6. The overall results are also summarized in Figure 5.

Based on Income of country of Investment				
	High	**Middle**	**Low**	**Total**
IT	22	14	0	**36**
Pharmaceuticals	26	9	2	**37**
Auto Components	18	2	0	**20**
Construction	22	3	7	**32**
Telecom	16	8	4	**28**
Petroleum Products	1	1	5	**7**
Oil & Gas Mining	4	16	4	**24**
Steel	10	3	7	**20**
Dyes	3	1	0	**4**
Paints	1	2	0	**3**
Machinery/Capital Goods	11	3	0	**14**
Non Ferrous Metals	1	1	0	**2**
Auto	23	7	0	**30**
Cosmetics, toiletries, etc.	6	2	0	**8**
Tyres & Tubes	1	5	0	**6**
Diversified	1	0	0	**1**
Food Products	10	5	0	**15**
TOTAL	**176**	**82**	**29**	**287**
Percentage	**61.32%**	**28.57%**	**10.10%**	**100.00%**

Table 6: Investment based on target country

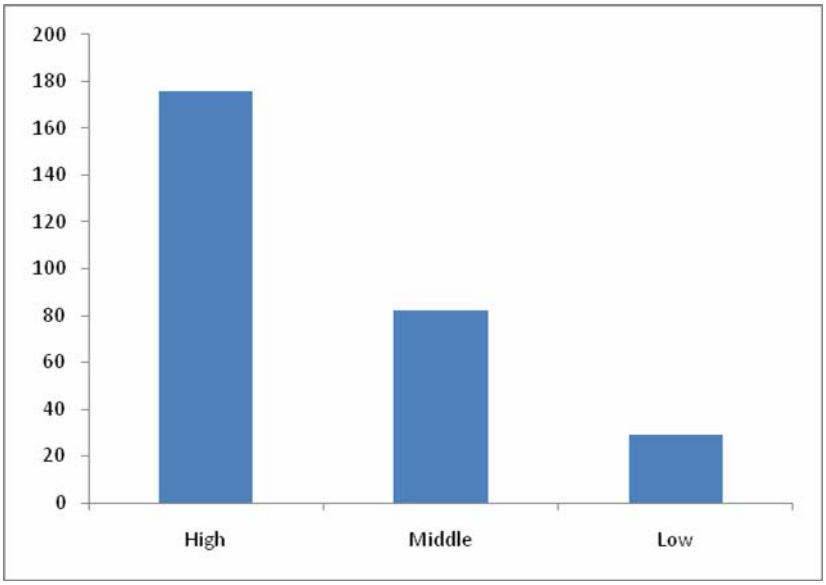


Figure 5: Foreign Investment based on target country income

Figure 5 shows that most of the foreign investment from India has been to countries with high income. As seen in Table 6, high income countries account for 61.32% of the total foreign investment from India.

Table 7 helps us analyze the sector wise trends in terms of target country of investment. The following inferences can be drawn based on the data available:

- The sectors for which most of the foreign investment is made to high income countries include IT, pharmaceuticals, auto & auto components, toiletries & food products, capital goods and construction.
- The sectors where majority of the investment has been made to middle income countries include oil & gas mining.
- Petroleum products have invested mainly in low income countries
- For sectors such as metals (ferrous & non-ferrous), the investment has been equally distributed between high income countries on one side and middle & low income countries on the other.

Based on Income of country of Investment				
	High	**Middle**	**Low**	**No of instances**
IT	61.11%	38.89%	0.00%	**36**
Pharmaceuticals	70.27%	24.32%	5.41%	**37**
Auto Components	90.00%	10.00%	0.00%	**20**
Construction	68.75%	9.38%	21.88%	**32**
Telecom	57.14%	28.57%	14.29%	**28**
Petroleum Products	14.29%	14.29%	71.43%	**7**
Oil & Gas Mining	16.67%	66.67%	16.67%	**24**
Steel	50.00%	15.00%	35.00%	**20**
Dyes	75.00%	25.00%	0.00%	**4**
Paints	33.33%	66.67%	0.00%	**3**
Machinery/Capital Goods	78.57%	21.43%	0.00%	**14**
Non Ferrous Metals	50.00%	50.00%	0.00%	**2**
Auto	76.67%	23.33%	0.00%	**30**
Cosmetics, toiletries, etc.	75.00%	25.00%	0.00%	**8**
Tyres & Tubes	16.67%	83.33%	0.00%	**6**
Diversified	100.00%	0.00%	0.00%	**1**
Food Products	66.67%	33.33%	0.00%	**15**

Table 7: Percentage distribution of foreign investment based on target country income

HYPOTHESIS 3.2: TARGET COUNTRY CONTINENT

A geographical analysis of the collated data was also done. The target countries were identified into 6 major geographies as follows:

- North America
- South America
- Asia
- Europe
- Middle East
- Africa

Table 8 and Figure 6 summarize the inferences drawn from this data. In certain instances, the target country could not be singularly identified – for instance if a JV is formed among three countries. As a result, the total no of instances is 290 instead of 287 (See Table 8)

Based on Continent of Country of Investment							
	North America	South America	Asia	Europe	Middle East	Africa	Total
IT	10	6	8	9	2	1	**36**
Pharmaceuticals	13	2	7	9	1	5	**37**
Auto Components	4	0	2	14	0	0	**20**
Construction	0	0	9	3	17	3	**32**
Telecom	7	0	9	6	2	4	**28**
Petroleum Products	0	1	2	1	0	3	**7**
Oil & Gas Mining	3	9	6	2	1	3	**24**
Steel	1	1	12	3	1	2	**20**
Dyes	2	0	1	1	0	0	**4**
Paints	0	0	3	0	0	0	**3**
Machinery/Capital Goods	4	0	3	8	0	0	**15**
Non Ferrous Metals	1	0	1	0	0	0	**2**
Auto	6	0	6	17	1	2	**32**
Cosmetics, toiletries, etc.	3	0	0	2	1	2	**8**
Tyres & Tubes	1	0	2	2	0	1	**6**
Diversified	0	0	1	0	0	0	**1**
Food Products	5	0	3	6	0	1	**15**
TOTAL	**60**	**19**	**75**	**83**	**26**	**27**	**290**
Percentage	**20.69%**	**6.55%**	**25.86%**	**28.62%**	**8.97%**	**9.31%**	**100.00%**

Table 8: Foreign investment based on target country geography

Figure 6 shows that Europe and Asia together account for about 54.48% of the instances of foreign investment, while North America accounts for another 20.69%.

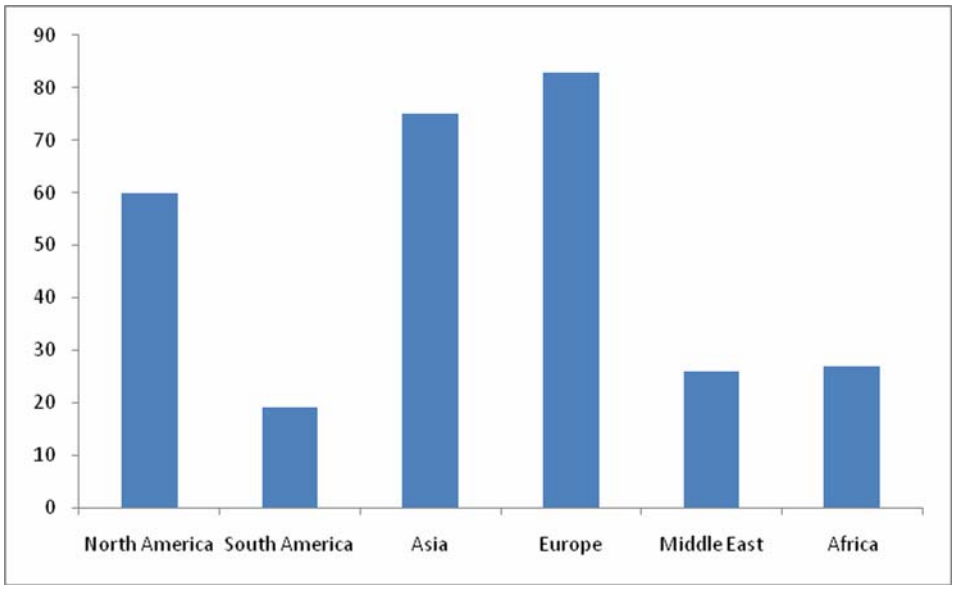


Figure 6: Foreign investment based on geography

Table 9 shows the sector wise percentage distribution of geography of investment. From the table it is apparent that:

- Sectors such as non ferrous metals, IT, cosmetics & toiletries and pharmaceuticals have bulk of their investments in North America.
- South American invetsments largely are related to oil & gas mining
- In Asia, predominant sectors from India in terms of foreign investment are paints, metals (steel and non-ferrous metals), telecom and tyres & tubes
- Europe is a preferred destination for foreign investment for companies in sectors such as capital goods, auto and auto components
- Construction companies target most of their foreign investment in Middle East.
- Most of the foreign investment from Indian companies in petroleum products occurs in Africa

Based on Continent of the Country of Investment							
	North America	South America	Asia	Europe	Middle East	Africa	No of instances
IT	**27.78%**	16.67%	22.22%	25.00%	5.56%	2.78%	**36**
Pharmaceuticals	**35.14%**	5.41%	18.92%	24.32%	2.70%	13.51%	**37**
Auto Components	20.00%	0.00%	10.00%	**70.00%**	0.00%	0.00%	**20**
Construction	0.00%	0.00%	28.13%	9.38%	**53.13%**	9.38%	**32**
Telecom	25.00%	0.00%	**32.14%**	21.43%	7.14%	14.29%	**28**
Petroleum Products	0.00%	14.29%	28.57%	14.29%	0.00%	**42.86%**	**7**
Oil & Gas Mining	12.50%	**37.50%**	25.00%	8.33%	4.17%	12.50%	**24**
Steel	5.00%	5.00%	**60.00%**	15.00%	5.00%	10.00%	**20**
Dyes	**50.00%**	0.00%	25.00%	25.00%	0.00%	0.00%	**4**
Paints	0.00%	0.00%	**100.00%**	0.00%	0.00%	0.00%	**3**
Machinery/Capital Goods	26.67%	0.00%	20.00%	**53.33%**	0.00%	0.00%	**15**
Non Ferrous Metals	**50.00%**	0.00%	**50.00%**	0.00%	0.00%	0.00%	**2**
Auto	18.75%	0.00%	18.75%	**53.13%**	3.13%	6.25%	**32**
Cosmetics, toiletries, etc.	**37.50%**	0.00%	0.00%	25.00%	12.50%	25.00%	**8**
Tyres & Tubes	16.67%	0.00%	**33.33%**	**33.33%**	0.00%	16.67%	**6**
Diversified	0.00%	0.00%	**100.00%**	0.00%	0.00%	0.00%	**1**
Food Products	33.33%	0.00%	20.00%	**40.00%**	0.00%	6.67%	**15**

Table 9: Sector wise percentage distribution of foreign investment based on geography

HYPOTHESIS 4: DEPENDENCE ON OWNERSHIP VARIABLES

To test the dependence of FDI on ownership variables, a Logit regression model was used as discussed earlier.

The following ownership variables along with their measurement metric were identified as independent variables for the regression (Table 10):

Independent Variables	Measurement Metric
Need for resource	Percentage import / Total consumption
Post Sales Service requirement	Ratio of revenue from services
Factor of production	Capital/Labour ratio
Presence of IP	R&D as a percentage of sales
Distribution system	Distribution expenditure by sales ratio
Product / brand differentiation	Advertising/Sales Ratio

Table 10: Measurement Metric for Ownership variables

For each of the sectors under study, these ownership variables were estimated from CMIE by taking only companies with revenues of 100 Crores and above within those sectors. The average for the industry is weighted using free float market capitalization weight for the company. The results are shown in Table 11 below:

Ownership Variables	Need for resources	Post Sales Service requirement	Factor of production (capital / labor)	Presence of IP	Distribution system	Product / brand differentiation
Auto components	0.17497691	0.00049414	0.52720886	0.01207534	0.01426859	0.00195762
Construction	0.12482266	0.00143860	0.24186972	0.00297056	0.00429993	0.00314127
IT	0.71455804	0.00065449	0.08244815	0.00842337	0.00108515	0.00261896
Pharmaceuticals	0.42282223	0.00000000	0.33670420	0.05371200	0.01675781	0.01251977
Steel	0.00121176	0.00000000	0.31855764	0.00381365	0.02944061	0.00006582
Telecom	0.00363890	0.00000000	1.64803337	0.00009979	0.00001917	0.01832046
Oil & Gas Mining	0.00000000	0.00000000	2.68210238	0.00159361	0.01055847	0.00000406
Petroleum Products	0.00034117	0.00000000	0.96921402	0.00071093	0.01724211	0.00019519
Dyes	0.02767174	0.00000000	0.43211701	0.00411071	0.02345069	0.00044520
Paints	0.00268842	0.00000000	0.26446781	0.00640674	0.03517369	0.03145157
Machinery/Capital Goods	0.00468918	0.00746137	0.26714801	0.00877093	0.01723868	0.00470365
Non Ferrous Metals	0.00000000	0.00000000	0.67263933	0.00209853	0.02557558	0.00028232
Auto	0.00026358	0.00084723	0.32777747	0.01551979	0.02167153	0.00613034
Cosmetics, toiletries, etc.	0.00000000	0.00000000	0.26642228	0.00279679	0.05422268	0.08615668
Tyres & tubes	0.00000000	0.00000000	0.40371287	0.00297354	0.02679796	0.00734882
Diversified	0.00000000	0.00019981	0.29521957	0.00033073	0.02052625	0.00918859
Food Products	0.00147778	0.00000000	0.49433683	0.00103534	0.02503684	0.02083134

Table 11: Ownership variables as calculated for each sector

The independent variable is the incidence of FDI which is determined as follows:

- If the investment is of the nature of acquisition or Greenfield, it is considered as an incidence of FDI and the dependent variable is set to 1
- For all other investments such as Joint Ventures, Alliances, etc. the dependent variable is set to 0.

Then for each sector, number of incidences of FDI and total number of incidences are determined which, along with the independent variables are fed into Minitab for Logit Regression. Table 12 shows the dependent variable as calculated for each sector:

Sector	No of incidences of FDI	Total no of incidences
Auto components	14	20
Construction	4	32
IT	24	36
Pharmaceuticals	19	37
Steel	11	20
Telecom	14	28
Oil & Gas Mining	14	24
Petroleum Products	7	7
Dyes	3	4
Paints	2	3
Machinery/Capital Goods	9	14
Non Ferrous Metals	2	2
Auto	17	30
Cosmetics, toiletries, etc.	7	8
Tyres & tubes	6	6
Diversified	0	1
Food Products	11	15

Table 12: Number of incidences of FDI for each sector

The detailed results of the Logit regression are presented in Table 13.

Link Function: Logit

Response Information

Variable	Value	Count
Success	Event	157
	Non-event	120
Trial	Total	277

Logistic Regression Table

Predictor	Coef	SE Coef	Z	P	Odds Ratio
Constant	-1.58505	0.526991	-3.01	0.003	
Need for resources	3.00627	0.884277	3.4	0.001	20.21
Post Sales Service requirement	70.0002	86.0437	0.81	0.416	2.52E+30
Factor of production (capital / labor)	0.617139	0.243576	2.53	0.011	1.85
Presence of IP	-21.821	9.52068	-2.29	0.022	0
Distribution system	78.5974	19.3412	4.06	0	1.36E+34
Product / brand differentiation	8.20039	16.5245	0.5	0.62	3642.38

	95% CI	
Predictor	Lower	Upper
Constant		
Need for resources	3.57	114.37
Post Sales Service requirement	0	4.39E+103
Factor of production (capital / labor)	1.15	2.99
Presence of IP	0	0.04
Distribution system	4.69E+17	3.96E+50
Product / brand differentiation	0	4.24E+17

Log-Likelihood = -178.030

Test that all slopes are zero: G = 22.987, DF = 6, P-Value = 0.001

Goodness-of-Fit Tests

Method	Chi-Square	DF	P
Pearson	24.5122	6	0
Deviance	28.7445	6	0
Hosmer-Lemeshow	13.8551	6	0.031

Table of Observed and Expected Frequencies:
(See Hosmer-Lemeshow Test for the Pearson Chi-Square Statistic)

Group

Value	1	2	3	4	5	6	7	8	Total
Event									
Obs	4	14	17	19	23	31	28	21	157
Exp	10.9	11.2	15.7	19.8	19	27.2	28.6	24.7	
Non-event									
Obs	28	14	13	18	11	12	13	11	120
Exp	21.1	16.8	14.3	17.2	15	15.8	12.4	7.3	
Total	32	28	30	37	34	43	41	32	277

Measures of Association:
(Between the Response Variable and Predicted Probabilities)

Pairs	Number	Percent	Summary	Measures
Concordant	11535	61.2	Somers' D	0.32
Discordant	5584	29.6	Goodman-Kruskal Gamma	0.35
Ties	1721	9.1	Kendall's Tau-a	0.16
Total	18840	100		

Table 13: Results of Logistic Regression

Some of the sectors which have very few overall incidences of foreign investments – namely – dyes, paints, non ferrous metals and diversified were left out for analysis as they could have distorted the results.

Table 13 shows that:

- Distribution system has the most positive impact on a FDI. If distribution expenses are high, a firm will tend to go for FDI.
- 'Need for resources' also has a positive influence on the foreign direct investment of a company. This is intuitive since a company which is dependent on imports for its raw material or resource requirements may want to invest abroad to get access to such resources.
- Factor of production or capital-labor ratio also has a positive influence on a firm's decision to go for FDI. Higher the capital, higher is the probability of a firm going for FDI. High capital intensity or low labor intensity also signifies that a firm will not be that constrained by hiring and training new labor in a culturally different country. This factor, however, is not as important as need for resources in a firm's consideration for FDI.
- Presence of IP has a negative influence on FDI. One possible explanation could be that a research intensive firm may not feel the need to acquire new products or brands from abroad and may have a higher organic growth focus.

The post sales service requirement and brand differentiation results were not significant enough and hence were ignored.

HYPOTHESIS 5: IMPACT OF FISCHER OPEN DIFFERENTIAL

Fischer Open Differential takes into account the following:

- **Interest rates differential:** If the interest rate differential viz. a viz. a foreign country is high for India - i.e., if (i_i-i_f) is high, where i_i is the interest rate in India and i_f is the interest rate abroad - there will be greater incentive to borrow abroad and make direct investments abroad.
- **Exchange rate depreciation:** Depreciation of Indian currency will make it more attractive for an Indian entity to invest abroad in another currency.

The Fischer Open Differential combines the above two effects and is defined as:

Fischer Open Differential (FOD) = $(i_i-i_f) + ((e_{t+1} - e_t)*100)/e_t$

To validate the above hypotheses, the India outward FDI data was regressed against the FOD with respect to US. For the purpose of calculating interest rate differential, PLR was used for India and US 30 year Treasury Bond Rate for US. The same analysis was carried out using FOD with respect to Europe.

However the results of regression with FOD and exchange rate depreciation did not show a good R^2. It was therefore decided to assess the impact of interest rate differential separately.

The results are summarized below:

Gross FDI versus interest rate differential in US

Table 14 below shows the regression results for India's Gross FDI with interest rate differential. From the regression equation, it can be concluded that as long as the interest rate differential between PLR in India and US 30 year Treasury rate is less than 5.91%, there is no positive FDI outflow from India. It is only when this differential becomes greater than 5.91%, the FDI outflow from India increased by INR 6, 116 crores for every 1% increase in interest rate differential.

Regression Analysis: C2 versus C6
C2: India's FDI, C6: Interest Rate Differential

The regression equation is
C2= -36153 + 6116 C6

Predictor	Coef	SE Coef	T	P
Constant	-36153	5225	-6.92	0
C6	6116.3	712.1	8.59	0

S=4993.30 R-Sq=69.7% R-Sq(adj)=68.80%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	1839298313	1839298313	73.77	0
Residual Error	32	797857748	24933055		
Total	33	2637156061			

Table 14: Gross FDI vs. Interest Rate Differential

HYPOTHESIS 6: CORRELATION WITH OTHER MACROECONOMIC INDICATORS

India's outward FDI was regressed against India's non agricultural GDP and portfolio investments out of India to assess the impact of growth in the economy on India's outward FDI.

India's outward FDI and Non agricultural GDP

The results are summarized in the table below.

From the regression results, it can be concluded that India's outward FDI has a positive relation with the India's non agricultural GDP. However, the negative coefficient in the regression equation implies that FDI out of India starts only after a certain threshold of INR 3, 59, 468 crores is crossed.

Regression Analysis: C1 (India's outward FDI) versus C2 (Non agricultural GDP)

The regression equation is
C1 = - 14199 + 0.0395 C2

Predictor	Coef	SE Coef	T	P
Constant	-14199	2590	-5.48	0
C2	0.039508	0.004209	9.39	0

S = 5175.17 R-Sq = 71.6% R-Sq(adj) = 70.8%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	2359434135	2359434135	88.10	0
Residual Error	35	937383590	26782388		
Total	36	3296817725			

Table 15: India's outward FDI vs. non agricultural GDP

IMPACT OF POLICY CHANGE

Regulatory changes in India have also been a strong contributor to the observed increase in investment outflow from India, especially the year 2000 onwards. Some of the key policy changes which have impacted investment outflow from India are:

- **Reserve Bank of India Notification No. FEMA.40/2001-RB; 2 March 2001**
  - The three years profitability condition requirement has been removed for Indian companies making overseas investments under the automatic route
  - Overseas investments are allowed to be funded up to 100% by American Depository Receipt/General Depository Receipt proceeds; up from the previous ceiling of 50%.
  - Overseas investments are opened to registered partnership firms and companies that provide professional services. The minimum net worth of Rs. 150 million for Indian companies engaged in financial sector activities in India has been removed for investment abroad in financial sector

- **Reserve Bank of India Notification No. FEMA.49/2002-RB; 2 March 2001**
  - An Indian party which has exhausted the limit of $100 million in a year may apply to the Reserve Bank of India for a block allocation of foreign exchange subject to such terms and conditions as may be necessary

- **Reserve Bank of India Notification No. FEMA.49/2002-RB; 19 January 2002**
  - Indian companies in Special Economic Zones can freely make overseas investment up to any amount without the restriction of the $100 million ceiling under the automatic route, provided the funding is done out of the Exchange Earners Foreign Currency Account balances

- **Reserve Bank of India Notification No. FEMA.53/2002-RB; 1 March 2002 and FEMA.79/2002-RB;10 December 2002**
  - The annual limit on overseas investment has been raised to $100 million (up from $50 million) and the limit for direct investments in South Asian Association for Regional Cooperation countries (excluding Pakistan) and Myanmar has been raised to $150 million (up from $75 million); for Rupee investments in Nepal and Bhutan the limit has been raised to Rs. 700 crores (up from Rs. 350 crores) under the automatic route

- **Reserve Bank of India Notification No. 83/RB 2003; 1 March 2003**
  - Indian companies can make overseas investments by market purchases of foreign exchange without prior approval of the Reserve Bank of India up to 100% of their net worth; up from the previous limit of 50%
  - An Indian company with a proven track-record is allowed to invest up to 100% of its net worth within the overall limit of $100 million by way of market purchases for investment in a foreign entity engaged in any bona fide business activity starting fiscal year 2003-2004. The provision restricting overseas investments in the same activity as its core activity at home of the Indian company are removed. Listed Indian companies, residents and mutual funds are permitted to invest abroad in companies listed on a recognised stock exchange and in company which has the shareholding of at least 10% in an Indian company listed on a recognised stock exchange in India.

- **Changes brought about in fiscal year 2003-2004**
  - Indian firms are allowed to undertake agricultural activities, which was previously restricted, either directly or through an overseas branch
  - Investments in joint venture or wholly-owned subsidiary abroad by way of share swap are permitted under the automatic route;

- In January 2004, the Reserve Bank of India further relaxed the monetary ceiling on Indian companies' investment abroad. With effect from fiscal year 2003-2004, Indian companies can invest up to 100% of their net worth without any separate monetary ceiling even if the investment exceeds the $100 million ceiling previously imposed. Furthermore, Indian companies can now invest or make acquisitions abroad in areas unrelated to their business at home.

- In 2005, banks were permitted to lend money to Indian companies for acquisition of equity in overseas joint ventures, wholly owned subsidiaries or in other overseas companies as strategic investment.

- In 2006, the automatic route of disinvestments was further liberalized. Indian companies are now permitted to disinvest without prior approval of the RBI in select categories. To encourage large and important exporters, proprietary/unregistered partnership firms have been allowed to set up a JV/WOS outside Indian with the prior approval of RBI.

- In 2007, the ceiling of investment by Indian entities was revised from 100 per cent of the net worth to 200 per cent of the net worth of the investing company under the automatic route of overseas investment. The limit of 200 per cent of the net worth of the Indian party was enhanced to 300 per cent of the net worth in June 2007 under automatic route (200 per cent in case of revisited partnership firms). In September 2007, this was further enhanced to 400 per cent of the net worth of the Indian party.

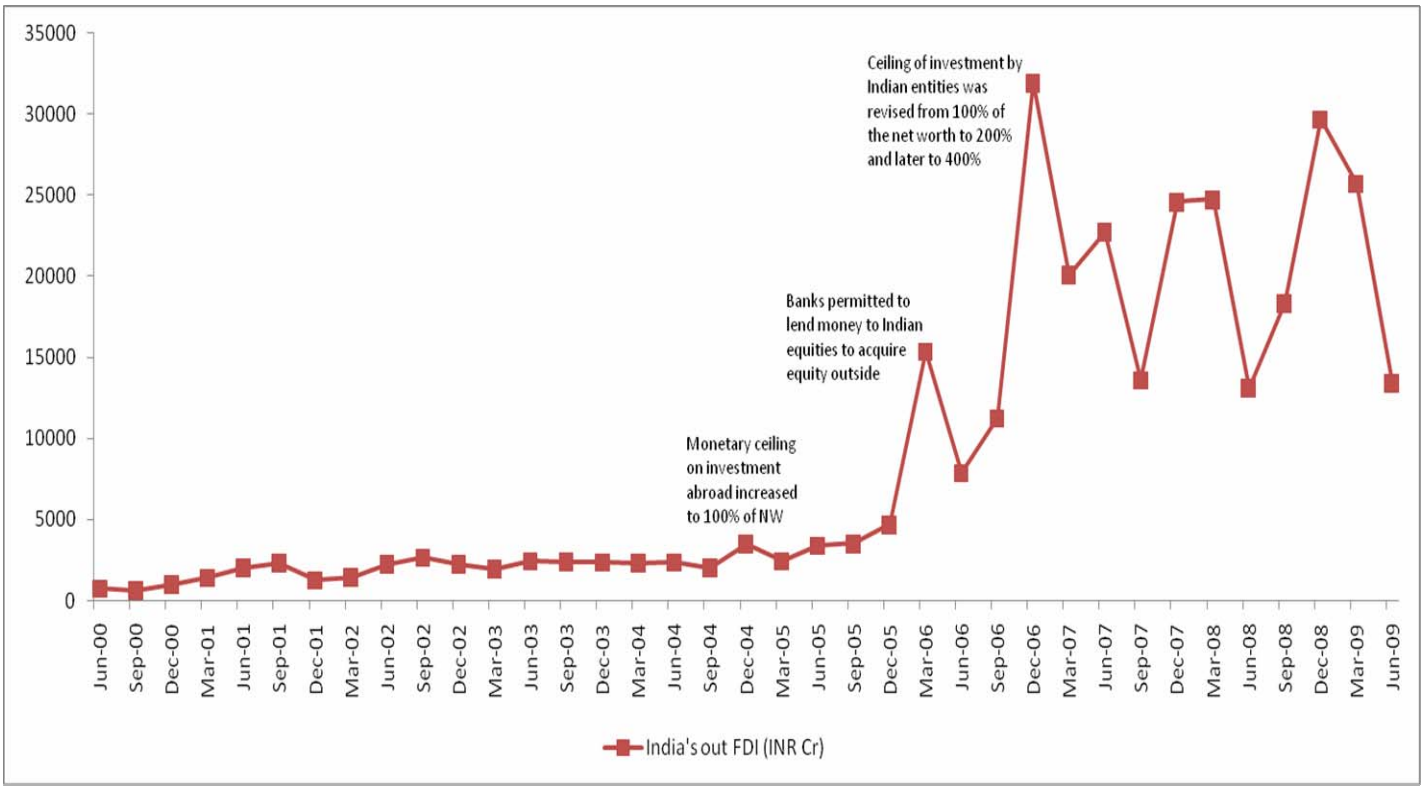
- The Liberalized Remittance Scheme (LRS) for Resident individuals was further liberalized by enhancing the existing limit of US$ 100.00 per financial year to US$ 200.00 per financial year (April-March) in September 2007.

- The limit of portfolio investment by listed Indian companies in the equity of listed foreign companies was raised in September 2007 from 35 per cent to 50 per cent of the net worth of the investing company as on the date of its last audited balance sheet. Furthermore, the requirement of reciprocal 10 per cent shareholding in Indian companies has been dispensed with.

- The aggregate ceiling for overseas investment by mutual funds, registered with SEBI, was enhanced from US$ 4 billion to US$ 5 billion in September 2007. This was further raised to US$ 7 billion in April 2008. The existing facility to allow a limited number of qualified Indian mutual funds to invest cumulatively up to US$ 1 billion in overseas Exchange Traded Funds, as may be permitted by the SEBI would continue. The investments would be subject to the terms and conditions and operational guidelines as issued by SEBI.

- Registered Trusts and Societies engaged in manufacturing/educational sector have been allowed in June 2008 to make investment in the same sector(s) in a Joint Venture or Wholly Owned Subsidiary outside India, with the prior approval of the Reserve Bank.

- Registered Trusts and Societies which have set up hospital(s) in India have been allowed in August 2008 to make investment in the same sector(s) in a JV/WOS outside India, with the prior approval of the Reserve Bank.



As can been seen from the above chart, the outward FDI in India really picked up after Q1 2006.

CONCLUSIONS

The predominant mode of entry for India firms in the last 5 years has been acquisitions accounting for 33.80% of the total Indian outward investment from the instances studied. This is closely followed by joint ventures. This shows that Indian firms have the confidence to venture abroad and maintain operational control of the acquired company without the dependence on a foreign partner.

Most foreign investments made by Indian companies have been market seeking. Over 50% of the total investments made abroad qualify to be market seeking while 33.78% of the investments are made to seek new technologies, brands or products. This is especially skewed towards the service sector showing that the required competencies are being built at home while small foreign firms with niche client bases are used as add-on acquisitions.

Most of the foreign investment from India has been to countries with high income with established large markets which Indian firms want to capture.

An analysis of the ownership variables also shows that if distribution system needed is expensive, it has positive impact on outward FDI. High capital intensity and need for resources also drive outward FDI while presence of an IP has a negative relation with the outward FDI.

Regulatory and policy changes also have a huge impact on outward FDI. The interest rate differential, for instance, also fuels FDI beyond a certain threshold as it becomes cheaper to raise funds abroad.

There is also a learning curve effect as illustrated in the case of Lupin where the firms gradually progress from joint venture and alliances to acquisitions and setting up Greenfield operations.

Thus, it is seen that different factors are driving various sectors of the economy to invest abroad. It is important that policy-makers and regulators alike understand these factors so that they can take the right policy initiatives and create the right business environment which would provide an impetus and confidence for firms to further go abroad and create world class Indian multinational corporations.

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Appendix-I

Company Name	Date of activity	Nature of activity	Target Country	Country Classification	Continent	Size of the investment	Percentage Stake	Mode of Entry	Market Seeking	Technology Seeking	Resource Seeking	Output Variable
IT												
Tata Consultancy Services Ltd.	2009	New GDC	Argentina	Middle	South America	$20,00,000	100%	Greenfield	1.00	0.00	0.00	1
	2009	New GDC	Mexico	Middle	South America	$20,00,000	100%	Greenfield	1.00	0.00	0.00	1
	2008	New GDC	China	Middle	Asia	NA	100%	Greenfield	1.00	0.00	0.00	1
	2008	New GDC	USA	High	North America	NA	100%	Greenfield	1.00	0.00	0.00	1
	2007	Center of excellence	Japan	High	Asia	NA	100%	Alliance	0.00	1.00	0.00	0
	2007	New GDC	South Africa	Middle	Africa	NA	100%	Greenfield	1.00	0.00	0.00	1
	2007	New GDC	Mexico	Middle	South America	NA	100%	Greenfield	1.00	0.00	0.00	1
	2007	NewGDC	Uruguay	Middle	Europe	NA	100%	Greenfield	1.00	0.00	0.00	1
	2007	JV	China	Middle	Asia	NA	100%	Joint Venture	1.00	0.00	0.00	0
Infosys Technologies Ltd.	2009	JV	USA	High	North America	NA	100%	Joint Venture	0.50	0.50	0.00	0
	2008	New GDC	China	Middle	Asia	NA	100%	Greenfield	1.00	0.00	0.00	1
	2008	Research center	USA	High	North America	NA	100%	Alliance	0.00	1.00	0.00	0
	2008	New GDC	Mexico	Middle	South America	NA	100%	Greenfield	1.00	0.00	0.00	1
	2008	MoU	Japan	High	Asia	NA	100%	Alliance	0.00	1.00	0.00	0
	2007	New GDC	Mexico	Middle	South America	NA	100%	Greenfield	1.00	0.00	0.00	1
	2007	New GDC	Czech Republic	Middle	Europe	NA	100%	Greenfield	1.00	0.00	0.00	1
	2006	Increase investment in GDC	Czech Republic	Middle	Europe	NA	100%	Expansion	1.00	0.00	0.00	0
	2006	Center of Excellence	USA	High	North America	NA	100%	Alliance	0.00	1.00	0.00	0

Tech Mahindra Ltd.	2009	Expansion	Bahrain	High	Middle East	NA	100%	Expansion	1.00	0.00	0.00	0
	2008	New GDC	Saudi Arabia	High	Middle East	NA	100%	Greenfield	1.00	0.00	0.00	1
	2008	New Center of Excellence	UK	High	Europe	NA	100%	Alliance	0.00	1.00	0.00	0
	2007	Center of excellence	Ireland	High	Europe	NA	100%	Alliance	0.00	1.00	0.00	0
Wipro	04-09-2008	Opens office in Cologne, Germany	Germany	High	Europe	NA	100%	Greenfield	1.00	0.00	0.00	1
	03-01-2008	Opens BPO office in Cebu, Philippines	Philippines	Middle	Asia	NA	100%	Greenfield	1.00	0.00	0.00	1
	11-09-2007	Wipro announces new Global Development Center	Mexico	Middle	South America	NA	100%	Greenfield	1.00	0.00	0.00	1
	27-08-2009	Opens software development center in Atlanta	US	High	North America	NA	100%	Greenfield	1.00	0.00	0.00	1
	06-08-2007	Acquires Infocrossing	US	High	North America	$60,00,00,000	100%	Acquisition	0.50	0.50	0.00	1
	04-03-2005	Expands German presence with office in Munich	Germany	High	Europe	NA	100%	Expansion	1.00	0.00	0.00	1
	24-04-2003	Acquires Nervewire Inc.	US	High	North America	$1,87,00,000	100%	Acquisition	0.50	0.50	0.00	1
HCL Technologies	26-08-2009	Announces partnership with Optimation	New Zealand	High	Asia	NA	100%	Alliance	0.50	0.50	0.00	0
	15-12-2008	Completes acquisition of AXON Group plc	UK	High	Europe	£44,00,00,000	100%	Acquisition	0.50	0.50	0.00	1
	25-08-2008	Fully acquire Control Point Solutions, Inc.	US	High	North America	$2,08,00,000	100%	Acquisition	0.50	0.50	0.00	1

	05-08-2008	HCL America, a division of HCL Technologies to open a US delivery center	US	High	North America	$32,00,000	100%	Expansion	1.00	0.00	0.00	1
	16-07-2008	Fully acquire Liberata Financial Services	UK	High	Europe	NA	100%	Acquisition	0.50	0.50	0.00	1
	20-02-2008	Acquisition of Capital Stream Inc.	US	High	North America	$4,00,00,000	100%	Acquisition	0.50	0.50	0.00	1
	03-06-2005	Forms JV with NEC, Japan	Japan	High	Asia	NA	51:49 = NEC: HCL	Joint Venture	0.50	0.50	0.00	0
Pharmaceuticals												
Dr Reddy Labs	2009	New product launch	USA	High	North America	NA	100%	Expansion	1.00	0.00	0.00	0
	2008	New product launch	USA	High	North America	NA		Expansion	1.00	0.00	0.00	0
	2008	New subsidiary / business	USA	High	North America	NA		Greenfield	1.00	0.00	0.00	1
	2008	Acquisition of Dowpharma	UK	High	Europe	NA		Acquisition	0.00	0.50	0.50	1
	2008	Acquisition of BASF unit	USA	High	North America	NA		Acquisition	0.33	0.33	0.33	1
	2008	Acquisiiton of Jet	Italy	High	Europe	NA		Acquisition	0.00	1.00	0.00	1
	2007	New operations	Philippines	Middle	Asia	NA		Greenfield	1.00	0.00	0.00	1
	2007	New operations	Nigeria	Low	Africa	NA		Greenfield	1.00	0.00	0.00	1
	2006	Alliance	New Zealand	High	Asia	NA		Alliance	0.50	0.00	0.50	0
	2006	Acquisition of Betapharm	Germany	High	Europe	$80,00,00,000		Acquisition	0.50	0.00	0.50	1
Ranbaxy	2009	New product launch	Mexico	Middle	South America	NA		Expansion	1.00	0.00	0.00	0

	2009	New product launch	Romania	Middle	Europe	NA	Expansion	1.00	0.00	0.00	0
	2009	New product launch	Malaysia	Middle	Asia	NA	Expansion	1.00	0.00	0.00	0
	2008	New operations	Yemen	Low	Africa	NA	Greenfield	1.00	0.00	0.00	1
	2007	New product launch	Canada	High	North America	NA	Expansion	1.00	0.00	0.00	0
	2007	New product launch	USA	High	South America	NA	Expansion	1.00	0.00	0.00	0
	2007	Patents	Norway	High	Europe	NA	Alliance	0.50	0.50	0.00	0
	2007	Expansion	USA	High	North America	NA	Expansion	1.00	0.00	0.00	0
	2007	Acquisition	South Africa	Middle	Africa	NA	Acquisition	0.50	0.00	0.50	1
	2007	New product launch	Denmark	High	Europe	NA	Expansion	1.00	0.00	0.00	0
Lupin	2009	Acquisition	Philippines	Middle	Asia	NA	Acquisition	1.00	0.00	0.00	1
	2008	Acquisition	South Africa	Middle	Africa	NA	Acquisition	0.50	0.00	0.50	1
	2008	Minority Stake	Australia	High	Asia	NA	Minority Stake	1.00	0.00	0.00	0
	2008	Marketing Alliance	USA	High	North America	NA	Alliance	1.00	0.00	0.00	0
	2008	Acquisition	Germany	High	Europe	NA	Acquisition	0.50	0.00	0.50	1
	2008	New product launch	Japan	High	Asia	NA	Expansion	1.00	0.00	0.00	0
	2008	New product launch	USA	High	North America	NA	Expansion	1.00	0.00	0.00	0
	2007	Acquisition	Japan	High	Asia	NA	Acquisition	0.33	0.33	0.33	1
	2006	Acquisition	Belgium	High	Europe	NA	Acquisition	0.50	0.50	0.00	1
	2006	Joint Venture	South Africa	Middle	Africa	NA	Joint Venture	1.00	0.00	0.00	0
Sun Pharma	2008	Acquisition	USA	High	North America	NA	Acquisition	0.00	1.00	0.00	1
	2007	Acquisition of Taro	Israel	High	Middle East	NA	Acquisition	0.00	0.50	0.50	1

	2005	Acquisition	USA	High	North America	NA		Acquisition	0.00	1.00	0.00	1
	2005	Acquisition	USA	High	North America	NA		Acquisition	0.00	0.00	1.00	1
	2005	Acquisition	Hungary	Middle	Europe	NA		Acquisition	0.00	0.50	0.50	1
	2005	Brand acquisition	USA	High	North America	NA		Acquisition	0.00	1.00	0.00	0
	2005	Stake hike	USA	High	North America	NA	63%	Acquisition	1.00	0.00	0.00	0
Auto components												
Bharat Forge	2005	JV	China	Middle	Asia	NA		Joint Venture	0.50	0.00	0.50	0
	2005	Acquisition	Scotland	High	Europe	NA		Acquisition	0.33	0.33	0.33	1
	2005	Acquisition	USA	High	North America	NA		Acquisition	0.33	0.33	0.33	1
	2004	Acquisition	Germany	High	Europe	NA		Acquisition	0.33	0.33	0.33	1
	2003	Acquisition	Germany	High	Europe	NA		Acquisition	0.00	0.50	0.50	1
Amtek Auto	2008	JV	USA	High	North America	NA		Joint Venture	0.50	0.50	0.00	0
	2008	JV	USA	High	North America	NA		Joint Venture	0.50	0.50	0.00	0
	2007	Acquisition	UK	High	Europe	NA		Acquisition	1.00	0.00	0.00	1
	2007	Acquisition	UK	High	Europe	NA		Acquisition	1.00	0.00	0.00	1
	2006	Acquisition	UK	High	Europe	NA		Acquisition	1.00	0.00	0.00	1
	2005	Subsidiary	USA	High	North America	NA		Greenfield	1.00	0.00	0.00	1
	2005	Acquisition	Germany	High	Europe	NA		Acquisition	0.50	0.50	0.00	1
	2005	JV	Germany	High	Europe	NA		Joint Venture	0.50	0.50	0.00	0
Sundaram Fasteners	2005	Acquisition	Germany	High	Europe	NA		Acquisition	1.00	0.00	0.00	1
	2004	JV	Germany	High	Europe	$50,00,000		Joint	0.50	0.50	0.00	0

							Venture				
	2004	Subsidiary	China	Middle	Asia	NA	Greenfield	1.00	0.00	0.00	1
	2003	Acquisition	UK	High	Europe	NA	Acquisition	1.00	0.00	0.00	1
	2003	Acquisition	Germany	High	Europe	NA	Acquisition	0.50	0.50	0.00	1
Sona Koyo Steering	2008	Acquisition	Germany	High	Europe	$14,60,00,000	Acquisition	1.00	0.00	0.00	1
	2004	Equity stake	France	High	Europe	$70,00,000 21%	Minority Stake	0.50	0.50	0.00	0
Construction											
GMR Group	2009	Acquisition	Singapore	High	Asia	NA	Acquisition	1.00	0.00	0.00	1
	2008	Acquisition	Netherlands	High	Europe	$1.1billion 50%	Acquisition	0.50	0.00	0.50	1
	2008	Implementation	Turkey	Middle	Europe	NA	Expansion	1.00	0.00	0.00	0
	2008	Implementation	Nepal	Low	Asia	NA	Expansion	1.00	0.00	0.00	0
	2006	MoU	China	Middle	Asia	NA	Alliance	1.00	0.00	0.00	0
L&T	2009	EPC	Qatar	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2009	EPC	UAE	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2009	EPC	Oman	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2009	EPC	Bhutan	Low	Asia	NA	Expansion	1.00	0.00	0.00	0
	2009	EPC	Abu Dhabi	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2009	Construction	Oman	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2008	EPC	UAE	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2008	EPC	Oman	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2008	New manufacturing unit	Saudi Arabia	High	Middle East	NA	Expansion	1.00	0.00	0.00	1
	2008	EPC	Qatar	High	Middle East	NA	Expansion	1.00	0.00	0.00	0
	2008	EPC	Oman	High	Middle East	NA	Expansion	1.00	0.00	0.00	0

	2008	EPC	Abu Dhabi	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
Punj Lloyd	2009	EPC	Saudi Arabia	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
	2009	EPC	Libya	Low	Africa	NA		Expansion	1.00	0.00	0.00	0
	2009	EPC	Singapore	High	Asia	NA		Expansion	1.00	0.00	0.00	0
	2009	EPC	Libya	Low	Africa	NA		Expansion	1.00	0.00	0.00	0
	2008	EPC	Qatar	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
	2008	Drilling	Libya	Low	Africa	NA		Expansion	1.00	0.00	0.00	0
	2008	Acquisition	UK	High	Europe	NA	74%	Acquisition	0.50	0.00	0.50	1
	2008	EPC	Malaysia	Middle	Asia	NA		Expansion	1.00	0.00	0.00	0
	2007	EPC	Singapore	High	Asia	NA		Expansion	1.00	0.00	0.00	0
	2007	EPC	Saudi Arabia	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
	2007	EPC	Oman	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
	2007	EPC	Bahrain	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
	2007	EPC	Saudi Arabia	High	Middle East	NA		Expansion	1.00	0.00	0.00	0
HCC	2009	EPC	Bhutan	Low	Asia	NA		Expansion	1.00	0.00	0.00	0
	2009	EPC	Bhutan	Low	Asia	NA		Expansion	1.00	0.00	0.00	0
Telecom												
Bharti Airtel	04-08-2009	launches new terrestrial cable network to Bhutan	Bhutan	Low	Asia	NA		Greenfield	1.00	0.00	0.00	1
	15-08-2007	Launch mobile services in Sri Lanka	Sri Lanka	Middle	Asia	USD 200 million		Greenfield	1.00	0.00	0.00	1
Reliance Communications	26-05-2008	Reliance Globalcom, a division of Reliance communications, acquires VANCO Group Ltd.	UK	High	Europe	USD 76.9 million	100%	Acquisition	1.00	0.00	0.00	1

	12-05-2008	JV with Alcatel Lucent	France	High	Europe	NA		Joint Venture	0.50	0.50	0.00	0
	26-04-2008	Reliance Globalcom, a fully owned subsidiary of Reliance Communications acquires eWave World	UK	High	Europe	NA	90%	Acquisition	0.50	0.00	0.50	1
	16-07-2007	Reliance Globalcom, a division of Reliance communications, acquires Yipes Holding Inc.	US	High	North America	USD 300 million		Acquisition	0.50	0.00	0.50	1
	26-10-2003	Acquires Flag Telecom	US	High	North America	USD 207 million		Acquisition	0.50	0.00	0.50	1
Tata Communications	Nov-09	CWT and Tata Communications to Team Up to Provide Public Telepresence Facilities	US	High	North America	NA		Joint Venture	1.00	0.00	0.00	0
	Nov-09	Tata Communications Partners with SugarCRM to Provide On-Demand CRM to its Customers in India	US	High	North America	NA		Joint Venture	0.00	1.00	0.00	0
	Oct-09	Tata Communications extends connectivity into Australia via PPC1 Cable System	Australia	High	Asia	NA		Expansion	1.00	0.00	0.00	1
	Sep-09	Tata Communications Extends WAN Ethernet Service to	China	Middle	Asia	NA		Greenfield	1.00	0.00	0.00	1

		China								
	Sep-09	Tata Communications Transformation Services (TCTS) Starts Management of SEACOM Cable System Linking the World and Eastern & Southern Africa	Africa	Low	Africa	NA	Greenfield	1.00	0.00	0.00	1
	Sep-09	AccessKenya and Tata Communications sign partnership agreement to launch Tier 1 internet Point of Presence in Kenya	Kenya	Low	Africa	NA	Joint Venture	1.00	0.00	0.00	1
	Aug-09	Tata Communications and Neotel Launch SEACOM Cable System	South Africa	Middle	Africa	NA	Joint Venture	0.50	0.50	0.00	1
	Aug-09	Tata Communications And Tyco Telecommunications Complete Tgn-Intra Asia Cable System	US	High	North America	NA	Acquisition	0.33	0.33	0.33	1
	Jul-09	Tata Communications Supports gotalk's Business Expansion Through Voice Outsourcing Partnership	Australia	High	Asia	NA	Joint Venture	1.00	0.00	0.00	0
	Jul-09	Tata Communications Partners with F-secure	Helsinki, Finland	High	Europe	NA	Joint Venture	0.50	0.50	0.00	0

		to Introduce Mobile Security Solutions for Mobile Subscribers in India								
	Jul-09	MTS Selects Tata Communications to manage its Call Centers	Russia	Middle	Asia	NA	Expansion	1.00	0.00	0.00	0
	Jun-09	Starwood Hotels and Tata Communications Partner to Roll-Out TelePresence Rooms in Hotels Globally	US	High	North America	NA	Joint Venture	1.00	0.00	0.00	0
	Jun-09	Telx and Tata Communications Forge Global Alliance	US	High	North America	NA	Joint Venture	0.33	0.33	0.33	0
	Jun-09	BT and Tata Communications Sign Global Strategic Voice Services Agreement	UK	High	Europe	NA	Joint Venture	1.00	0.00	0.00	0
	Jun-09	PCCW Global and Tata Communications strengthens connectivity and reliability in Asia Pacific via the TGN-Intra Asia Cable System	HK	Middle	Asia	NA	Joint Venture	0.50	0.00	0.50	0
	Jun-09	Qtel and Tata Communications Collaborate to Offer	Qatar	High	Middle East	NA	Joint Venture	0.00	1.00	0.00	0

		Global Connectivity Services								
	May-09	Tata Communications and RTComm Partner to Deliver Joint Data Services throughout Russia	Russia	Middle	Asia	NA	Joint Venture	1.00	0.00	0.00	0
	Apr-09	Tata Communications announces participation in West African Cable System	Africa	Low	Africa	USD 600 million	Joint Venture	0.00	0.00	1.00	1
	Apr-09	Tata Communications and Dimension Data partner to accelerate global TelePresence market	UK, South Africa	Middle	Europe	NA	Joint Venture	0.00	1.00	0.00	0
	Mar-09	A collaboration between Cisco, the Philippine Long Distance Telecommunications Co. (PLDT) and Tata Communications will result in the first public TelePresence service in the Philippines	Philippines	Middle	Asia	NA	Joint Venture	0.50	0.50	0.00	0
	Mar-09	Etisalat & Tata Communications introduce advanced communication	UAE	High	Middle East	NA	Joint Venture	1.00	0.00	0.00	1

		services in UAE										
Petroleum Products												
Essar Oil Ltd	31-07-2009	Acquires stake in Kenyan refinery Kenya Petroleum Refineries Ltd (KPRL)	Kenya	Low	Africa	NA	50%	Minority Stake	1.00	0.00	0.00	1
	10-07-2008	Launches largest airborne survey for exploring oil and gas in Madagascar	Madagascar	Low	Africa	USD 15 million		Greenfield	0.00	0.00	1.00	1
	04-03-2008	Awarded an offshore block in Vietnam	Vietnam	Low	Asia	USD 60 million		Greenfield	0.00	0.00	1.00	1
	15-01-2008	Announcement to acquire stake in KPRL Ltd.	Kenya	Low	Africa	USD 400-450 million	50%	Minority Stake	1.00	0.00	0.00	1
	09-05-2005	2 production sharing contracts with Government of Myanmar	Myanmar	Low	Asia	NA		Greenfield	0.00	0.00	1.00	1
Reliance Industries Ltd.	Sep-08	Incorporates 2 wholly owned subsidiaries (Reliance Global Energy Services Limited) to tap emerging opportunities in global markets of petroleum products	London & Singapore	High	Europe	NA		Acquisition	1.00	0.00	0.00	1

	Dec-07	Signs two E&P contracts in Colombia Offshore	Colombia	Middle	South America	USD 50 million		Greenfield	0.00	0.00	1.00	1
Oil & Gas Mining												
ONGC Ltd.	Jan-08	Acquire Imperial Energy PLC	UK	High	Europe	USD 18900 milllion	100%	Acquisition	0.00	0.00	1.00	1
ONGC Ltd.	Nov-08	Bagged 2 blocks in Colombia	Colombia	Middle	South America	NA	NA	Greenfield	0.00	0.00	1.00	1
ONGC Ltd.	Dec-07	Petroctech Society and CMD, ONGC signed a MoU with University of Alberta for academic programs	Canada	High	North America	NA	NA	Alliance	0.00	1.00	0.00	0
ONGC Ltd.	Nov-07	ONGC awarded blocks in Brazil	Brazil	Middle	South America	NA	NA	Greenfield	0.00	0.00	1.00	1
ONGC Ltd.	Oct-07	A 51:49 JV between OVL and Mittal Investment Sarl (MIS), OMEL, acquired 30% participating interest in a block offshore Turkmenistan	Turkmenistan	Middle	Asia	NA	NA	Joint Venture	0.00	0.00	1.00	0
ONGC Ltd.	Sep-07	OVL signs production sharing contracts with Myanmar Oil and Gas Enterprise, Govt. of the Union of Myanmar for 3 blocks	Myanmar	Low	Asia	USD 150 million	NA	Greenfield	0.00	0.00	1.00	1

ONGC Ltd.	Sep-07	OVL bags three blocks in Colombia	Colombia	Middle	South America	NA	NA	Greenfield	0.00	0.00	1.00	1
ONGC Ltd.	Jul-07	Mangalore Refinery & Petrochemicals Ltd., an ONGC group company enters into an agreement with State Trading Corporation Mauritius to supply petroleum products	Mauritius	Middle	Asia	NA	NA	Alliance	1.00	0.00	0.00	0
ONGC Ltd.	Jul-07	Tie up with Norwegian Deepwater expert Norsk Hydro Produksjon AS, to develop Deepwater Oil & Gas blocks off the Indian coasts	Norway	High	Europe	USD 7 million	NA	Alliance	0.00	1.00	0.00	0
ONGC Ltd.	Jun-07	ONGC and Petroleo Brasileiro reached agreement on swapping of interests in offshore blocks in India and Brazil.	Brazil	Middle	South America	NA	NA	Alliance	0.00	0.00	1.00	0
ONGC Ltd.	Mar-07	Signed Exploration and Production Sharing Agreement (EPSA) with National Oil Corporation of Libya	Libya	Middle	Africa	NA	NA	Greenfield	0.00	0.00	1.00	1

ONGC Ltd.	Mar-07	Enters in to MoU with University of New South Wales	Australia	High	Asia	NA	NA	Alliance	0.00	1.00	0.00	0
ONGC Ltd.	Feb-07	ENI, Italy and ONGC sign cooperation agreement for the swap of participating interests in exploration blocks located in India and Congo Brazzaville	Congo	Low	Africa	NA	NA	Alliance	0.00	0.50	0.50	1
ONGC Ltd.	Sep-06	Signs MoU with INTEVEP, S.A., Venezuela for skill development in E&P	Venezuala	Middle	South America	NA	NA	Alliance	0.00	1.00	0.00	0
ONGC Ltd.	Sep-06	50:50 JV between OVL's subsidiary and Sinopec's subsidiary acquires Omimex de Colombia Ltd.	Colombia	Middle	South America	NA	100%	Acquisition	0.00	0.00	1.00	1
ONGC Ltd.	Sep-06	OVL signs MoU with Petrobas on Oil field E&D.	Brazil	Middle	South America	NA	NA	Alliance	0.00	0.50	0.50	0
ONGC Ltd.	Sep-06	OVL entered in production sharing contract with CUPET, State oil company of Republic of Cuba for 2 offshore blocks	Cuba	Middle	North America	NA	NA	Greenfield	0.00	0.00	1.00	1
ONGC Ltd.	Jul-06	Signs MoU with IPetroEcuador, the	Ecuador	Middle	South America	NA	NA	Alliance	0.50	0.00	0.50	0

		State Oil Company of Ecuador										
ONGC Ltd.	May-06	OVL has signed Production Sharing Contracts with Vietnam Oil and Gas Corporation ("PetroVietnam") with 100% participating interest.	Vietnam	Low	Asia	NA	NA	Greenfield	0.00	0.00	1.00	1
ONGC Ltd.	May-06	Acquired 30% PI in 6 offshore blocks	Cuba	Middle	North America	NA	NA	Minority Stake	0.00	0.00	1.00	1
ONGC Ltd.	May-06	OMEL awarded 2 blocks in Nigerian deepwater	Nigeria	Low	Africa	NA	NA	Greenfield	0.00	0.00	1.00	1
ONGC Ltd.	Apr-06	Acquires 15% equity in block BC-10	Brazil	Middle	South America	USD 410 million	15%	Minority Stake	0.00	0.00	1.00	1
ONGC Ltd.	Feb-06	OMEL acquired interest in a producing asset in Syria	Syria	Middle	Middle East	NA	NA	Greenfield	0.00	0.00	1.00	1
Jindal Petroleum Ltd	Jan-09	Signed four Production Sharing Contracts with the Government of the Democratic Republic of Georgia for the E & P of four blocks of oil and gas	Georgia	Middle	Asia	USD 150 million	NA	Greenfield	0.00	0.00	1.00	1

Steel												
Tata Steel	Jul-09	Raised stake in Riversdale Mining Ltd.	Australia	High	Asia	NA	19.38% total after raising	Minority Stake	0.00	0.00	1.00	1
Tata Steel	Apr-09	Corus, a subsidiary of Tata Steel has opened a Aerospace Service Center	China	Middle	Asia	NA	NA	Greenfield	1.00	0.00	0.00	1
Tata Steel	Nov-08	Signed a contract with CMI FPE Ltd for supply of 6 High reversing cold mill to set up a 200,000 MT p.a. TMBP CRM#2 project in TCIL.	Belgium	High	Europe	NA	NA	Alliance	0.00	1.00	0.00	1
Tata Steel	Oct-08	Enters into a binding agreement with New Millennium Capital Corporation (NML), Canada, whereby Tata Steel becomes a strategic investor in NML	Canada	High	North America	NA	19.90%	Minority Stake	0.00	0.00	1.00	1
Tata Steel	Sep-08	Tata Steel signs agreement with Nippon Steel Hardfacing company on transfer of overlay welding technology	Japan	High	Asia	NA	NA	Alliance	0.00	1.00	0.00	0
Tata Steel	Aug-08	Vietnam Steel corporation, Vietnam cement industries	Vietnam	Low	Asia	USD 3 billion	NA	Greenfield	1.00	0.00	0.00	0

		corporation and Tata Steel sign a joint venture agreement to set up a 4.5 mtpa steel complex in the Ha Tinh province										
Tata Steel	Aug-08	Tata Steel COTE D'IVOIRE SA (TSCI) sets up office at Abidjan	Ivory Coast	Low	Africa	NA	NA	Greenfield	0.00	0.00	1.00	1
Tata Steel	May-08	Tata Steel and Vale, a Brazilian Company along with other joint venture partners have announced to undertake a large scale expansion of the Carborough Downs Coal Mine near Moranbah in Central Queensland in Australia.	Australia	High	Asia	Total Investment: AUD 401 million	NA	Expansion	0.00	0.00	1.00	0
Tata Steel	May-08	TSCI was formed after the Joint Venture agreement signed between Tata Steel Limited and SODEMI in Dec 07 for Mount Nimba Iron Ore.	Ivory Coast	Low	Africa	NA	NA	Joint Venture	0.00	0.00	1.00	0
Tata Steel	Jan-08	Tata Steel's joint venture in the Sultanate of Oman For	Oman	Middle	Middle East	NA	NA	Joint Venture	0.00	0.00	1.00	0

		Uyun limestone										
Tata Steel	Nov-07	Tata Steel signs JV with Riversdale Mining for Mozambique Coal Project	Australia	High	Asia	Tata Steel to pay AUD100 million (approximately 88.2 million USD) to acquire 35% of Riversdale's Benga and Tete licences	NA	Joint Venture	0.00	0.00	1.00	0
Tata Steel	Oct-07	Vietnam Steel Corporation (VNSTEEL) and Tata Steel sign a MoU	Vietnam	Low	Asia	NA	NA	Alliance	1.00	0.00	0.00	0
Tata Steel	Aug-07	Tata Steel Limited and Riversdale Mining Limited entered into a MOU, whereby Tata Steel will become a strategic investor in Riversdale's Mozambique Coal Project	Australia	High	Asia	AUD 100 million	35%	Minority Stake	0.00	0.00	1.00	1
Tata Steel	Jul-07	Vietnam Steel Corporation and Tata Steel sign a Memorandum of Cooperation	Vietnam	Low	Asia	NA	NA	Alliance	1.00	0.00	0.00	0
Tata Steel	May-07	Vietnam Steel Corporation and Tata	Vietnam	Low	Asia	NA	NA	Alliance	1.00	0.00	0.00	0

		Steel sign an MoU										
Tata Steel	Apr-07	Tata Steel completed its £6.2 billion (US$12 billion) acquisition of Corus Group plc (Corus) at a price of 608 pence per ordinary share in cash.	UK	High	Europe	USD 12 billion	100%	Acquisition	0.50	0.50	0.00	1
Tata Steel	Mar-07	Tata Steel acquires two steel rolling mills in Vietnam	Vietnam	Low	Asia	USD 41 million	100%	Acquisition	0.50	0.50	0.00	1
JSW Steel	Nov-08	JSW Building Systems Ltd., wholly owned subsidiary of JSW Steel enters into JV with Severfield Reeve Structures Ltd.	UK	High	Europe	INR 220 crore - project size	NA	Joint Venture	0.00	1.00	0.00	0
Jindal Steel	Mar-07	Reached an agreement with the Bolivian Government on the terms of the planned investment in mining and steel-making at the El Mutun iron ore mines.	Bolivia	Middle	South America	USD 2.1 billion	NA	Greenfield	0.00	0.00	1.00	1
Bhushan Steel	Sep-09	Bhushan Steel (Australia), part of Delhi-based cold roller, Bhushan Steel group, has acquired a 60 per cent stake in Australian exploration	Australia	High	Asia	NA	60%	Acquisition	0.00	0.00	1.00	1

		company, Bowen Energy.										
Dyes												
Micro Inks	07-Jan	HostmannSteinberg USA	USA	High	North America	NA	100%	Acquisition	0.50	0.50	0.00	1
DIC India	14-09-1996	JV for the Manufacture of Can Coatings	France	High	Europe	NA	NA	Joint Venture	0.00	1.00	0.00	0
Ciba Specialty Chemicals	01-05-2000	acquired 51 per cent in Diamond Dye-Chem Ltd	Asia-Pacific	Middle	Asia	NA	NA	Joint Venture	1.00	0.00	0.00	1
Ciba Specialty Chemicals	2005	Intertech Corp	USA	High	North America	NA	100%	Acquisition	0.00	1.00	0.00	1
Paints												
Asian Paints	2003	Taubman Paint	Fiji	Middle	Asia	USD 1.42 million	100%	Acquisition	0.50	0.50	0.00	1
Nerolac	2005	Acquisition	Malaysia	Middle	Asia	NA	NA	Acquisition	0.50	0.50	0.00	1
Nerolac	2005	JV	Japan	High	Asia	NA	NA	Joint Venture	0.50	0.50	0.00	0
Machinery/Capital Goods												
BHEL	10-Jul-97	entered into a 50-50 joint venture agreement with General Electric Co	United States	High	North America	NA	NA	Joint Venture	0.50	0.50	0.00	0
BHEL	08-Oct-09	rumored to be carrying out due	Hungary	Middle	Europe	NA	NA	Acquisition	0.00	1.00	0.00	1

		diligence to acquire the entire share capital of to acquire majority stake in Transelektro Ganz-Rock Kazan es Eromuvi berendezesek Zrt, which manufactures parts for power plants.										
BHEL	15-Oct-08	decided to bid for Skoda Power A.S., a unit of Czech Republic's Skoda Holding A.S	Czech Republic	Middle	Europe	NA	NA	Acquisition	0.00	1.00	0.00	1
BHEL	02-Apr-09	invest nearly INR1,200 crore in setting up a joint venture with an international firm for manufacturing transmission equipment	France/Japan	High	Asia/Europe	NA	NA	Joint Venture	0.00	1.00	0.00	0
BHEL	19-Feb-09	may enter into a joint venture with General Electric Co. to make 1,000 locomotive engines for the Indian Railways; 23% stake in JV	US	High	North America	INR 1000 crores	NA	Joint Venture	0.00	1.00	0.00	0
HCL Infosystems Ltd	18-Oct-99	acquired FEC Singapore Pte Ltd for INR 67.8 million	Singapore	High	Asia	INR 67.8 million	100%	Acquisition	0.00	1.00	0.00	1

HCL Infosystems Ltd	14-Oct-05	JV with AMD	United States	High	North America	NA	NA	Joint Venture	0.00	1.00	0.00	0
HCL Infosystems Ltd	02-Oct-08	Axon Group PLC to recommend HCL offer to the Board	United Kingdom	High	Europe	GBP 441 million	100%	Acquisition	0.00	1.00	0.00	1
HCL Infosystems Ltd	28-Jan-09	Nokia Corporation and HCL Infosystems Limited plan to set up a joint venture to sell mobile value-added services	Finland	High	Europe	NA	NA	Joint Venture	0.00	1.00	0.00	0
Crompton Greaves	25-Feb-05	buy Belgium's Pauwel group's transformer business	Belgium	High	Europe	EUR 32.1 million	100%	Acquisition	1.00	0.00	0.00	1
Crompton Greaves	28-May-07	acquired Microsol Holdings Ltd, with operations in the UK, United States and Ireland	UK	High	Europe	EUR 10.5 million	100%	Acquisition	0.00	1.00	0.00	1
Crompton Greaves	14-Feb-08	acquired 40 pct voting share capital in its Indonesian joint venture, PT Pauwels Trafo Asia (PTA); now owns 100%	Indonesia	Middle	Asia	USD 10.7 million	100%	Acquisition	0.00	1.00	0.00	1
Crompton Greaves	02-Jun-08	will acquire So No Ma Tra Societe Nouvelle de Maintenance Transformateurs SAS (Sonomatra), a French company	France	High	Europe	EUR 1.3 million	100%	Acquisition	0.00	1.00	0.00	1

Crompton Greaves	14-Sep-08	completed the acquisition of MSE Power Systems Inc	US	High	North America	USD 16 million	100%	Acquisition	0.00	1.00	0.00	1
Non Ferrous Metals												
Sterlite	05-Feb-08	acquire substantially all assets of Asarco LLC, a wholly-owned subsidiary of Grupo Mexico SAB de CV	US	High	North America	USD 2.6 billion	100%	Acquisition	0.50	0.00	0.50	1
Sterlite	09-Sep-08	Sterlite Industries (India) will acquire 100% stake in THL KCM Ltd	Mauritius	Middle	Asia	NA	100%	Acquisition	0.00	0.00	1.00	1
Auto												
Ashok Leyland	19-Jul-06	acquiring the Truck Business Unit of AVIA as in Prague, in Czech Republic	Czech Republic	Middle	Europe	USD 35 million	100%	Acquisition	0.00	1.00	0.00	1
Ashok Leyland	06-Oct-06	bid for Doktas Dokumculuk Ticaret Ve Sanayii AS	Turkey	Middle	Europe	USD 180 million	100%	Acquisition	0.00	1.00	0.00	1
Ashok Leyland	30-Apr-07	acquired 100% of the paid-up capital of Defiance Testing and Engineering Services Inc based near Detroit, Michigan, USA.	United States	High	North America	USD 17 million	100%	Acquisition	0.00	1.00	0.00	1
Ashok Leyland	27-Jun-07	in talks with Thai auto	Thailand	Middle	Asia	NA	NA	Joint	0.50	0.00	0.50	0

		parts manufacturer Sammitr Motors Manufacturing Public Company Limited to set up a joint venture						Venture				
Ashok Leyland	03-Jul-07	entered into a 50:50 joint venture with the Alteams Group of Finland	Finland	High	Europe	NA	NA	Joint Venture	0.00	1.00	0.00	0
Ashok Leyland	16-Jul-07	Ashok Leyland Ltd and Siemens VDO Automotive AG, Germany have entered into a joint venture to design, develop and adapt infotronics products and services for the transportation sector; 50% stake	Germany	High	Europe	NA	NA	Joint Venture	0.00	1.00	0.00	0
Ashok Leyland	29-Aug-07	Ashok Leyland Ltd has signed a Heads of Agreement with Nissan Motor Co. Ltd, Japan	Japan	High	Asia	NA	NA	Joint Venture	0.50	0.50	0.00	0
Ashok Leyland	15-Oct-07	looking for a joint venture partner in order to build assembly plants in South Africa.	South Africa	Middle	Africa	NA	NA	Joint Venture	0.50	0.50	0.00	0
Ashok Leyland	17-Jun-08	made a strategic investment in the German ALBONAIR	Germany	High	Europe	NA	NA	Minority Stake	0.00	1.00	0.00	1

		GmbH										
Ashok Leyland	11-Jan-07	established a subsidiary Company (LLC) in Ras Al Khaimah, UAE	UAE	High	Middle East	NA	NA	Greenfield	1.00	0.00	0.00	1
Ashok Leyland	19-Jun-08	formed a new company to develop, produce and sell vehicle emission treatment and control systems. The new company ALBONAIR GmbH will be based in Germany	Germany	High	Europe	NA	NA	Greenfield	0.00	1.00	0.00	1
Ashok Leyland	28-Jan-06	tied up with a French company to launch a 'light armoured vehicle' in India.	France	High	Europe	NA	NA	Alliance	0.00	1.00	0.00	0
Ashok Leyland	30-Sep-08	formed a joint venture with John Deere for construction equipment	US	High	North America	NA	NA	Joint Venture	0.00	1.00	0.00	1
Mahindra	18-Sep-97	tied up with Sega Enterprises Ltd and Mitsubishi Corporation, Japan	US, Japan	High	North America/Asia	NA	NA	Alliance	0.00	1.00	0.00	0
Mahindra	15-May-04	Bristlecone, Inc a provider of supply chain and manufacturing consulting services	US	High	North America	NA	100%	Acquisition	0.50	0.50	0.00	1

		based in San Jose, California announced the completion of its merger with Mahindra Consulting.										
Mahindra	09-Nov-04	formed joint venture with Jiangling Motor Company Group (JMCG) of the People's Republic of China to acquire 80% of the JMCG owned Jiangling Tractor Company (JTC)	China	Middle	Asia	USD 10 million	80%	Acquisition	0.50	0.50	0.00	1
Mahindra	22-Nov-04	51:49 joint venture with Renault, to produce and sell the latter's car, Logan, in India	France	High	Europe	NA	NA	Joint Venture	0.50	0.50	0.00	0
Mahindra	14-Jun-05	Mahindra & Mahindra Ltd of India and Navistar International Corporation of the United States has announced its intent to form a Joint Venture (JV), 51:49	US	High	North America	NA	NA	Joint Venture	0.00	1.00	0.00	0
Mahindra	04-Jan-06	acquired 98.6 percent of Stokes Group, a UK-based automotive forging company	UK	High	Europe	NA	98.60%	Acquisition	0.50	0.50	0.00	1

Mahindra	28-Sep-06	agreed to buy 67.9% of German Company Jeco-Holding AG for around EUR 140,000,000.00.	Germany	High	Europe	EUR 140 million	67.90%	Acquisition	0.50	0.50	0.00	1
Mahindra	22-Dec-06	acquisition of a 90.47% stake in German auto parts company Schoneweiss & Co. GmbH	Germany	High	Europe	NA	90.47%	Acquisition	0.50	0.50	0.00	1
Mahindra	23-Jan-07	Nissan Motor Company, Renault and top Indian auto maker, Mahindra & Mahindra has announced that they are in the latter stages of discussions regarding a joint venture in India	Japan, France	High	Europe/Asia	NA	NA	Joint Venture	0.50	0.50	0.00	0
Mahindra	02-Nov-07	signed a joint venture agreement with International Truck and Engine Corp, a wholly owned affiliate of Navistar International Corporation	US	High	North America	NA	NA	Joint Venture	0.00	1.00	0.00	0
Mahindra	06-Nov-07	interested in buying gear maker Metalcastello SpA for EUR 105 million	Italy	High	Europe	EUR 105 million	100.00%	Acquisition	0.50	0.50	0.00	1

Mahindra	08-Jan-08	acquire G.R. Grafica Ricerca Design Srl.	Italy	High	Europe	NA	100.00%	Acquisition	0.00	1.00	0.00	1
Mahindra	18-Feb-08	Mahindra & Mahindra Ltd and Whitehead Alenia Sistemi Subacquei a unit of Italy's Finmeccanica Group are planning a 500 million rupee joint venture to develop underwater defence systems	Italy	High	Europe	INR 500 million	NA	Joint Venture	0.00	1.00	0.00	0
Mahindra	05-Jun-08	to acquire 100% of Engines Engineering SpA for an undisclosed amount from Alberto Strazzari Strazzari	Italy	High	Europe	NA	100.00%	Acquisition	0.00	1.00	0.00	1
Mahindra	18-Aug-08	Mahindra & Mahindra Ltd will form a joint venture with Jiangsu Yueda Yancheng Tractor Manufacturing Co Ltd	China	Middle	Asia	USD 26 million	NA	Joint Venture	1.00	0.00	0.00	0
Mahindra	28-Aug-08	reportedly in talks to buy Italian motorcycle and scooter maker MALAGUTI.	Italy	High	Europe	NA	100.00%	Acquisition	0.00	1.00	0.00	1
Mahindra	11-Jun-09	planned to acquire remaining 8% interest it didn't already own in Mahindra South	South Africa	Middle	Africa	NA	100.00%	Acquisition	1.00	0.00	0.00	1

		Africa Pty Ltd										
Cosmetics, toiletries, etc.												
Godrej Consumer Products	31-Oct-05	purchased U.K.-based cosmetics and toiletries company Keyline Brands Ltd	UK	High	Europe	NA	100%	Acquisition	0.50	0.50	0.00	1
Godrej Consumer Products	04-Jul-06	acquired the South African hair color business of Rapidol, UK, as well as its subsidiary Rapidol international.(asset acquisition)	South Africa	Middle	Africa	NA	100%	Acquisition	0.50	0.50	0.00	1
Godrej Consumer Products	26-Mar-07	Godrej Consumer Products Ltd has informed BSE that SCA Hygiene Products AB, Sweden, a 100% subsidiary of the SCA Group, and the Company on March 24, 2007 have signed an agreement to forms Joint Venture Company	Sweden	High	Europe	INR 100 million	NA	Joint Venture	0.00	1.00	0.00	0
Godrej Consumer Products	01-Oct-07	acquired Godrej Global Mideast FZE for INR 580 million	UAE	High	Middle East	INR 580 million	100%	Acquisition	1.00	0.00	0.00	1
Godrej Consumer Products	22-Jan-08	acquired a 100% stake in the Kinky Group	South Africa	Middle	Africa	ZAR 265 million	100%	Acquisition	0.50	0.50	0.00	1

		(Proprietary) Ltd of South Africa for approximately ZAR 265 million.										
Nirma Ltd	16-Jul-06	to acquire U.S.-based manufacturer of Linear Alkyl Benzene	US	High	North America	NA	100%	Acquisition	0.00	1.00	0.00	1
Nirma Ltd	26-Nov-07	Sun Capital Partners announced sale of two of its affiliated portfolio companies, Searles Valley Minerals Operations Inc. and Searles Valley Minerals Inc. (collectively, SVM or Searles Valley), to Nirma Limited	US	High	North America	USD 225 million	100%	Acquisition	0.00	1.00	0.00	1
Nirma Ltd	29-Nov-07	incorporated Karnavati Holdings Inc, in Delaware, U.S.A., a wholly owned subsidiary of the Company.	US	High	North America	NA	NA	Greenfield	0.00	1.00	0.00	1
Tyres & Tubes												
J K Tyre & Inds. Ltd	11-Apr-08	Acquired Compania Hulera Tornel SA de CV, a Mexican tire manufacturer	Mexico	Middle	North America	INR 2.7 billion/USD 9.26 million	100%	Acquisition	1.00	0.00	0.00	1
Apollo Tyres	30-Jan-06	completed the acquisition of South	South Africa	Middle	Africa	INR 2.85 billion/USD 65	100%	Acquisition	0.50	0.50	0.00	1

		Africa's Dunlop Tyres International Ltd				million						
Apollo Tyres	29-Apr-09	Apollo Tyres Ltd has acquired Vredestein Banden BV, an Enschede-based owner of tyre factory	Netherlands	High	Europe	NA	100%	Acquisition	0.50	0.50	0.00	1
Apollo Tyres	14-Aug-08	cancelled plans to invest EUR200 million ($298.2 million) in a new plant in the eastern Hungarian town of Gyongyos	Hungary	Middle	Europe	EUR 200 million	NA	Greenfield	1.00	0.00	0.00	1
Ceat Ltd.	16-Nov-98	Sri Lanka's Kelani Tyres Ltd incorporated a new tyre-making subsidiary as part of its joint venture with Associated Ceat Pvt Ltd, a unit of India's Ceat Ltd	Sri Lanka	Middle	Asia	NA	NA	Greenfield	1.00	0.00	0.00	1
Ceat Ltd.	24-Jul-09	agreed to acquire 36.84% interest in the share capital of Associated CEAT Holdings Company Pvt Ltd (ACHL), a Sri Lankan JV of Ceat. On completion of this acquisition, Ceat's shareholding in the JV	Sri Lanka	Middle	Asia	NA	54.84%	Acquisition	1.00	0.00	0.00	1

		will increase to 54.84%.										
Diversified												
Aditya Birla Nuvo	24-Jul-02	Indian Rayon & Industries Ltd has launched its insulator joint venture with Japan-based NGK Insulators Ltd. The joint venture is named as Birla NGK Insulators Private Ltd.	Japan	High	Asia	NA	NA	Joint Venture	0.00	1.00	0.00	0
Food Products												
Britannia Industries Ltd	28-Apr-09	Britannia Industries Ltd signed an agreement to acquire the remaining 49% equity and preference stake in Britannia New Zealand Foods Pvt Ltd, a joint venture company engaged in Dairy business, from Fonterra Brands (Mauritius Holding) Ltd.	New Zealand	High	Asia	NA	49%	Acquisition	0.00	1.00	0.00	1
Britannia Industries Ltd	26-Sep-05	Britannia Industries Limited Plans Bid For UK's Typhoo Tea	UK	High	Europe	GBP 100 million	100%	Acquisition	0.00	1.00	0.00	1
EID Parry India Ltd	21-Nov-08	EID Parry India Ltd has acquired a 48%	United States	High	North America	NA	48%	Minority Stake	0.50	0.50	0.00	1

	stake in US Nutraceuticals LLC										
EID Parry India Ltd	20-Dec-07	Monsanto India Ltd (MIL), a wholly owned subsidiary of US-based Monsanto Holdings, has set up a joint venture with EID Parry (India) Ltd	United States	High	North America	NA	NA	Joint Venture	0.00	1.00	0.00	0
EID Parry India Ltd	08-Dec-06	EID Parry (India) Limited announced that it has signed a Joint Venture Agreement (JV) with Cargill Asia Pacific Holdings PTE Ltd, (Cargill) a wholly owned subsidiary of Cargill International;EID Parry to have 50% stake	Switzerland	High	Europe	NA	NA	Joint Venture	0.00	1.00	0.00	0
EID Parry India Ltd	20-Apr-06	EID Parry (India) Limited announced that its Board approved the Company partnering with ROCA Sanitario, S.A. of Spain who deal in the bathroom products for a 50:50 joint venture	Spain	High	Europe	NA	NA	Joint Venture	0.50	0.50	0.00	0

Tata Tea Ltd	27-Feb-00	Acquired The Tetley Group Ltd, Greenford, Middlesex, England	United Kingdom	High	Europe	GBP 271 million	100%	Acquisition	0.50	0.50	0.00	1
Tata Tea Ltd	15-Sep-05	Tata Tea Limited announces that its subsidiary, Tetley US Holdings Limited, USA has signed a definitive agreement to acquire FMALI Herb Inc. and Good Earth Corporation	United States	High	North America	NA	100%	Acquisition	0.50	0.50	0.00	1
Tata Tea Ltd	03-May-06	Tata Tea (GB) Ltd has signed a definitive agreement to acquire the assets of market leading tea company in the Czech Republic, JEMCA	Czech Republic	Middle	Europe	NA	100%	Acquisition	0.50	0.50	0.00	1
Tata Tea Ltd	25-Jun-06	India's Tata Coffee Ltd., has bought U.S.-based Eight O'Clock Coffee Company for $220 million	United States	High	North America	USD 220 million	100%	Acquisition	0.50	0.50	0.00	1
Tata Tea Ltd	23-Aug-06	acquired 25% of the shareholding of Energy Brands Inc; USA ("EBI")	United States	High	North America	USD 564 million	25%	Acquisition	0.50	0.50	0.00	1
Tata Tea Ltd	05-Oct-06	acquire a 33% stake in South African tea company, Joekels Tea	South Africa	Middle	Africa	NA	33%	Acquisition	0.50	0.50	0.00	1

		Packers										
Tata Tea Ltd	27-Apr-07	acquired two Polish tea brands Vitax and Flosana from Premium Foods S.A.	Poland	Middle	Europe	NA	Asset acquisition	Acquisition	0.50	0.50	0.00	1
Tata Tea Ltd	08-May-07	formed a joint venture with China's Zhejiang Tea Import and Export Company; Tata to own 70% of the JV	China	Middle	Asia	USD 17 million project cost	NA	Joint Venture	0.50	0.50	0.00	0
Tata Tea Ltd	26-Mar-09	JV between Tata tea and EBRD in the process of the acquisition of 51% of TD Grand (Tata Tea to own 33.2%)	Russian Federation	Middle	Asia	NA	51%	Acquisition	0.50	0.50	0.00	1

Appendix-II

Period	India's out FDI (INR Cr)	PLR	US 30 yr Treasury Rate	Int Rate Diff	Non-agri GDP (INR Cr.)
Jun-00	754	11.5	6.1	5.4	315945.9026
Sep-00	627	12.25	5.8	6.45	337710.1805
Dec-00	1002	12.25	5.24	7.01	377713.9429
Mar-01	1420	11.5	4.89	6.61	339398.1203
Jun-01	2026	11.5	5.28	6.22	348972.1259
Sep-01	2337	11.5	4.73	6.77	377313.4983
Dec-01	1281	11.5	5.09	6.41	409768.1259
Mar-02	1443	11.5	5.28	6.22	374638.6746
Jun-02	2266	11.5	4.93	6.57	383145.8072
Sep-02	2672	11.5	3.87	7.63	412698.1528
Dec-02	2253	11.125	4.03	7.095	440626.4789
Mar-03	1967	11.125	3.81	7.315	410319.9978
Jun-03	2442	11	3.33	7.67	427890.873
Sep-03	2388	11	4.27	6.73	456768.2366
Dec-03	2362	10.75	4.27	6.48	494377.0946
Mar-04	2348	10.625	3.83	6.795	457752.8487
Jun-04	2379	10.625	4.73	5.895	481088.8636
Sep-04	2026	10.5	4.13	6.37	514521.3823
Dec-04	3512	10.5	4.23	6.27	552465.6891
Mar-05	2443	10.5	4.5	6	525926
Jun-05	3400	10.5	4	6.5	561042
Sep-05	3526	10.5	4.2	6.3	597582
Dec-05	4699	10.5	4.47	6.03	640728
Mar-06	15367	10.5	4.72	5.78	608605
Jun-06	7870	11	5.11	5.89	635237
Sep-06	11254	11.25	4.72	6.53	681177
Dec-06	31952	11.25	4.56	6.69	731732
Mar-07	20093	12.375	4.56	7.815	704962
Jun-07	22736	13	5.1	7.9	739526
Sep-07	13596	13	4.52	8.48	792861
Dec-07	24592	13	4.1	8.9	855991
Mar-08	24733	12.5	3.51	8.99	815078
Jun-08	13113	12.625	4.1	8.525	840438
Sep-08	18348	13.875	3.69	10.185	890873
Dec-08	29701	12.875	2.42	10.455	991906
Mar-09	25714	12	2.82	9.18	960008
Jun-09	13419	11.625	3.72	7.905	1013200