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An Exploration

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PATTERN OF FOREIGN DIRECT INVESTMENT IN EMERGING ECONOMIES: AN EXPLORATION[1]

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Abstract:

Until recently major part of FDI flows had been among developed economies with similar relative factor endowments, income levels and market institutions such as property rights regimes. Consequently, major theoretical streams of FDI in economics could simplify FDI as a substitute for intra-industry trade by incorporating transportation costs and economies of scale (multi-plants). In the recent years, developing economies have increased their share of FDI inflows significantly (40%). Explanation of magnitude and pattern of FDI into developing economies requires a complex ray of factors. This is because these economies differ significantly from developed economies and also among each other in economic development levels and endowment of market institutions. This paper attempts to develop a conceptual framework to explain pattern of FDI in developing economies by identifying the determinants on the supply and demand side and market institutional conditions. Differences in the endowment of the factors in a set determine the pattern of FDI in these economies. This paper illustrates this by taking the case study of China and India.

Key Words: Emerging Economies, Pattern of FDI, China and India

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1. INTRODUCTION

Since 1950 till the early part of the nineties, major portion of foreign direct investment flows had been among the developed (OECD) economies. As a natural outcome, the leading theoretical streams of foreign direct investment are envisaged to explain FDI flows among developed economies. As in intra-industry trade models, similarity in income levels and factor endowments and market institutions are the underlying explanations for FDI flows among the developed countries. This facilitates theoretical simplification of FDI flows as a substitute for intra-industry trade in differentiated goods by incorporating transportation costs and multi-plant operations into the analysis. The theories could afford to ignore or give a marginal treatment to market institutional and political factors because the OECD countries can be observed to be similar in these conditions. Although market institutions such as financial markets, and corporate governance are significantly different among the U.S., Japan and Western European Countries, these economies are similar in the institutions of the private property rights, protection of intellectual property[2] and democratic institutions such as independent judiciary.

During the last ten years there has been a significant increase in the share of developing countries in FDI inflows: it accounts for 40 percent of global FDI at present (World Investment Report, UNCTAD, 1999, Table 1). At the simpler level, the driving forces for the growth is observed in terms of opening up of these economies to FDI, supply side factor of low manpower costs and the demand side growth in incomes (and market size). At a more complex level, explanation of magnitude and pattern of FDI inflows into these economies requires analysis of a complex ray of factors as these countries differ from

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[1] I am grateful to Volker Mahnke for useful comments.

[2] In the case of Japan, it was able to grow rapidly till recently by violating IPRs in terms of undertaking reverse engineering practices.

developed countries but also among each other in several ways. They differ in the level of economic development and in endowment of market, political and legal institutions (Dixit, 1999). For example, several countries in Asia, Africa and Latin America informational imperfections arise in contractual formulations and enforcement because of poor administrative and enforcement services owing to low level of education and technology and communication infrastructure. In the case of transition economies of the former USSR, education levels and physical infrastructure endowments are high but the capitalist institutions such as property rights are highly underdeveloped. Furthermore, as most of these countries have been effecting policy reforms from high state intervention and socialistic mode of production to free-market mechanism, government policy changes frequently both for political compulsions and the process of learning. This in turn signals high risk through non-credible policy commitments. This risk differs for different industries depending on the extent of sunk costs, intangible assets of different industries.

In the recent years, there is a stream of literature in the international business, which examines the importance of institutional elements such as property rights, transaction costs, and political (risk) and legal aspects in determining FDI flows in the transition (ex-communist) and developing economies (Heinz, 1998; Heinz and Zelner, 1999; Oxley 1995; Levy and Spiller 1996). Differences in the endowment of supply and demand side and institutional factors determine the differences in the level and the type (pattern) of FDI inflows among developing economies. This paper develops a conceptual framework by integrating institutional aspects into demand and supply side factors to explain pattern of foreign direct investment in developing economies. The new institutional economics (Williamson, 1985; North, 1990) shows that efficiency of economic activity (on the demand and supply side) depends on market institutional factors such as transaction costs and property rights. In other words, the importance of institutional conditions is pervasive in an economy for attracting FDI. For example, a country that has endowment of low cost skilled labor and a large home market but very inefficient institutions of poor property rights and

high transaction costs would not attract much FDI. The example could be the Russian economy at present.

Pattern of FDI inflow refers to inflow of FDI into different industries in a country. At a broader level, one can look it in terms of vertical and horizontal investments.[3] In developed countries, these be might mutually exclusive as labor costs are similar. In developing countries both can take place because of growing local markets and lower labor costs. At a more detailed level, pattern of foreign direct investment has to separate industries on the basis of: knowledge and skill intensity of production, degree of fixed[4] and sunk costs in investment, labor and capital intensity of production, importance of intellectual property rights (see Table 1).[5] For example, computer software industry is highly skill intensive and importance of intellectual property rights are very important. On the other hand, in garment production these factors are not important. Infrastructure projects are sunk cost intensive with long gestation periods. To illustrate the above observation, a developing economy that has low wage costs and also large home market attracts both vertical and horizontal investment in differentiated goods. But if the protection of intellectual property rights is weak, it will attract FDI more in low technology manufacturing industries. If FDI comes into those industries where intellectual property is important, it may be primarily to make use of low costs of skilled labor for global market. India's software industry till the mid-90s can be a good example (Ghemawat and Patibandla, 1999). The choice between serving a developing country with exports versus direct investment also depends on the level of economic development and market institutional

[3] The sourcing decision is vertical investment- determined by wage costs and resource endowment differences across countries. The sales decision represents horizontal investment for overcoming transport costs and to locate production closer to consumers in the overseas markets.

[4] In industries with very high fixed costs firms will not undertake FDI because of importance of economies of scale: for example the Aircrafts production. FDI tends to be more in those industries with lower fixed costs and high degree of propreitery assets, which can be transferred across national boundaries with relative ease.

conditions. In a country that lacks minimum labor skills but has good intellectual property regime, production of knowledge intensive goods is not viable. In such a case, if demand for the specific goods exits, it has to be served by exports rather than local production.

In the following section, we bring out the supply and demand side and institutional factors, which govern determinants of pattern of FDI by examining the different streams of literature. In section 3, we bring out a conceptual framework that explains pattern of FDI inflows into developing economies by the differences in the endowment of a set of demand and supply side and institutional factors. In the section 4, we undertake a comparative analysis of China and India with a few select industry case studies.

2. Determinants of Pattern of FDI

Although there is no universal definition, conceptually foreign direct investment takes place when a foreign firm has decided to invest in a production unit in the host country, with control over its assets and its decision making. In other words, the decision by a firm in investing in foreign country is essentially to control some proprietary asset within the firm rather than transact it via the market (Hymer, 1976). If not for such a firm specific asset, arms length contracts would be the result. In the following, we bring out the supply and demand side and institutional determinants of FDI in developing economies by discussing some of the major streams in the literature (see Table 2 for an illustration).

2.1. The Supply and Demand Side Determinants of FDI

FDI can be seen as an extension of and substitute for international trade. Trade theories of comparative advantage and intra-industry trade models can help in identifying the supply and demand side factors that determine pattern of FDI: comparative advantage theory focuses on factor price differentials across countries and intra-industry trade models on

[5] Industries can also be classified as Resource-intensive products, Labour-intensive products, Scale-intensive products, Differentiated products and Science-based products.

economies of scale and product differentiation (income levels and market size). The 'Comparative Advantage Hypothesis' of FDI (Bhagwati and Srinivasan, 1983: Grossman and Helpman, 1991) focuses on the allocative aspects of FDI and cross-border production. This theory seeks to explain production relocation not to serve the host market but to export from the host country. TNC's decision where to locate production is determined by differences in relative production costs of different country locations converted to a common currency (Caves, 1996). In this case FDI expands international trade. This would imply that for some reason the developing economies are not able to take advantage of their comparative advantage in low labor costs and TNCs are to able to make use of it. The comparative advantage hypothesis of FDI fails to explain the fact the most part of FDI is among developed countries that are similar in relative factor endowments and prices. Treating FDI as a substitute for intra-industry trade in differentiated goods by incorporating transportation costs and multi-plant operations (economies of scale) fits rather well in explaining FDI flows among developed countries (Markusen 1995).

The explanation for why the developed countries are the source and LDCs are the hosts for FDI can be drawn from the earlier neo-technology trade theories and the recent endogenous growth theory. The neo-technology theory of showed that a country that is endowed with favorable capital and labor ratio, knowledge inputs and conditions for appropriation of innovation and large home market becomes a breeding ground for innovation. The cumulative process of technological innovation in developed economies keeps developing economies with a continuous technological lag (Vernon 1966; Krugman, 1979). The endogenous growth theory of Romer (1990) sheds light on how technological change is endogenously generated in developed economies by micro and macro level incentives emanating from market conditions and the policy and institutional regime.

The above observation shows that innovation is determined by the endowment of human and physical capital, the market conditions and the institutional conditions that provide incentives for innovation. The production of the new differentiated goods and services in

developing countries also require availability of skilled labor, managerial talent, certain technological institutions, and intellectual property protection.

The intangible asset theory of FDI shows that innovation provides a firm with a firm specific advantage in the home and foreign markets (Hymer 1976, Kindleberger 1969, Dunning 1988, Casson, 1979, Caves, 1996). The proprietary nature of these assets provides the innovating firm a monopolistic advantage over other firms both in the home and foreign market.[6] Similarity in per capita income levels among developed economies provides immediate market for the new differentiated goods. Serving these markets through exports or FDI is a matter of trade-off between plant level economies of scale and transportation (and tariffs) costs. In this case FDI is a substitute for international trade in differentiated goods.

While FDI among developed economies is mostly horizontal investment, several developing economies such as China, Brazil, India, Mexico etc attract both horizontal and vertical investment. The investment pattern in these developing economies is determined by the set consisting of the supply side and demand side factors. Horizontal investment can be motivated by both low labor costs and for catering to local market. Labor intensive industries such as the electronic industries can take advantage of low labor costs for global market and also for catering to growing local market. An example could be the production of television sets and music systems, toys, etc., by the Japanese and Taiwanese TNCs in China. In other words, a country possessing the set that has both a (large) home market for differentiated goods and low costs of skilled and semi-skilled labor attracts both horizontal and vertical investment.

Another supply side factor determining the pattern of foreign direct investment is economies of scale in capital intensive industries. If the local market is too small, FDI in capital intensive goods does not take place, as serving the market through exports is more

[6] On other hand, Caves (1998) observes that many recent foreign investments, however, appear to fit the intangible assets model awkwardly. The examples are FDI in industries, such as steel, glass and cement. He observes "The relevant proprietary assets may be the implicit contracts between suppliers and large customers located abroad, reflecting the foreign investor's ability to manage the logistics of continuous supply and adaptation to the customer's needs rather than general product-embodied assets."

efficient than duplicating plants. Existence of large local market facilitates static and dynamic economies of scale, which in turn can also provide an advantage for undertaking exports apart from serving the local market. This advantage can get magnified in a host developing economy with a large market for differentiated goods by low cost of semi and skilled manpower. One important condition is that the cost advantage arising out of low labor costs and scale advantage in large developing economies should not be offset by high costs of infrastructure bottlenecks.

The size of the market for differentiated goods in developing economies is determined by income distribution characteristics. Large developing economies such as India, Mexico, Brazil and China are characterized by skewed income distribution with large number of low income and a smaller number of high-income consumers. In these countries, the high-income consumers could be a source of large market for differentiated goods. A developing economy with a small local market but low wage costs will attract investment mainly for the comparative advantage reasons. A good example could be garments production in Bangladesh.

Another important determinant of pattern of FDI is presence of technologically dynamic industry clusters. Comparative advantage in the endowment of skilled labor in a developing economy can get magnified if specific industries are organized in terms of technologically dynamic clusters by external economies of cluster activity. External economies of cluster activity implies that for given inputs the output of an individual firm is larger the larger is the aggregate output of other firms producing the same good in a cluster or a region. This can attract FDI into those industries where not only low cost of skilled labor but also external economies of cluster activity are dominant. One good example of this in a developing economy context is the software industry cluster in Bangalore in the southern part of India. South of India has large pool of software engineers and programmers and their productivity appears to have been enhanced by the organization of the industry into a technologically dynamic cluster in Bangalore.

The technologically dynamic clusters in developing economies might differ in some features from those in developed countries. Porter's (1990) theory of clusters characterizes technologically dynamic clusters in developed economies. It shows the micro-economic underpinnings of innovation in country-specific industrial clusters: this relationship depends on subtle interactions between input supply and local demand conditions, the presence and orientation of related and supporting industries, and the nature of local competitive rivalry. In developing countries, technologically dynamic industry clusters could be mainly export driven owing to low costs of skilled manpower (comparative advantage reasons). In such a case, local competitive rivalry is not a necessary condition. For example, the software industry cluster in Bangalore, India is export driven with minimal domestic market (Ghemawat and Patibandla, 1999). Most TNC have set up development centers in Bangalore for supporting R&D activity in home base and for software development for global market. Given the focus of this paper, the germane point is that TNC investment in Research and Development in India's software industry is motivated for taking advantage of low cost of skilled labor and also the strong external economies of a dynamic industry cluster (Patibandla and Petersen, 2001).

One other cluster that is taking shape is the automobile industry in the coastal state, Tamil Nadu in the southern part of India. Interesting aspect of this cluster is that it is being caused by the entry of quite a few TNCs into the Indian automobile industry in the recent years. Several TNCs such as Hyndai, Ford Motors, General Motors, Mitsubishi have set up plants in this location. Unlike in the case of the software industry cluster, the primary motive for the TNC entry is to cater to large growing local market. The location decision of TNCs within India is based on economic efficiency consideration of long coast, locally available skilled labor and relatively efficient infrastructure. As the local market grows it provides significant economies of scale, and as cluster becomes dynamic it provides significant external economies. Combining these factors with low cost of skilled labor will

give strong comparative advantage to the TNCs to use the location for serving the other Asian economies.

2.2. The Institutional Determinants of FDI

As the market for intangible assets is imperfect in several ways, these are partially public goods which means knowledge developed by one firm can be applied at little cost by other firms. For FDI to take place in a foreign country, it requires strong intellectual property rights protection. Similarity in the institutions of property rights in protecting intellectual property among developed countries is one of the reasons for FDI in modern industries being maximum among these countries.

There is a large body of theoretical and empirical literature on FDI on the issue of internalization, which takes into account of institutional elements such as transaction costs and property rights (see Caves, 1996; Oxley, 1995, for a review of this literature). A firm would choose arms length contracts to transact an asset for which there is a market that gives it full value for the asset. When this is not the case, then FDI or internalization results. The internalization theory emphasizes the information asymmetry of the market transaction as the main reason for existence of FDI as opposed to licensing and other forms of foreign investment (Casson, 1979).

Dunning's (1974) eclectic OLI (ownership, location and internalization) framework takes the institutional elements of transactions costs for explaining internalization behavior of MNCs. It lays emphasis on the higher costs of transacting via the market as against internalizing transactions within the firm because of non-existent, or imperfect markets for trade, or because of imperfections in selling licenses. Similar to Williamson's theory of vertical integration, internalization is a function of asset specificity, uncertainty and frequency in transaction in question (Henisz, 1998). Given the behavioral assumptions of bounded rationality and opportunism, internalization takes place when contractual hazards associated with transactions are high. A major part of transaction costs of joint ventures and arms length

are costs of appropriation by (local) partners of the ownership advantages through opportunistic behavior in contracts. These costs will be high in those countries where there are weak contract laws, legal system and intellectual property rights protection.

Effective protection of property rights ensures that the owner of an asset has discretion over the uses to which the asset is put to and is able to appropriate returns from the asset. It has implications on FDI at two levels 1) whether FDI takes place at all in a particular country in a specific industry and 2) the ownership modes relating to joint ventures. When the value of assets protected by patents and trademarks can not be fully realized by the owner, the incentive to make investments involving these technological and marketing based assets is reduced. Under a weak property rights regime, higher ownership modes are more efficient because of the reduction in cost of unwanted dissemination. Where property rights protection is greater, lower ownership modes more efficient, as the risk of asset appropriation is less.

The institutional aspects in determining investment decisions in developing economies are more complex than that is generally formulated in the literature of internalization. The new institutional economics makes a distinction between institutional environment and the institutions of governance. The institutional environment is defined jointly by the rules of the game (the formal constraints: constitutions, laws, property rights) and the conditions of embeddedness (the informal constraints: sanctions, taboos, customs, traditions, codes of conduct). The institutions of governance are market, quasi-market, and hierarchical modes of contracting- more generally of managing transactions and seeing economic activity through completion (Williamson, 1998). Institutional conditions for efficient functioning of markets is far less developed in developing and transition economies than in the advanced capitalist economies. Rules of the game may not be in place and if they are, it does not mean there is effective enforcement. For example, there could be administrative discretion on the part of the government and government agents owing to informational imperfections and weak legal systems. The administrative discretion not only places those who have already invested at

greater hazard, but also causes those who are contemplating investment to think again (Williamson, 1998)[7].

Following from the above observation in developing and transition economies characterized by weak property right regimes the risk of appropriation for TNCs stems from both governments and private agents. Predation by governments arises out of absence of regulatory predictability and procedural transparency.[8] The government's predation can be at two levels: frequent changes in the policy towards TNCs for political reasons and the other is the predation by the government agents. The later possibility arises when the rules are not clear and non-transparent, which provides scope for discretion of the government agents for extracting bribes.

The credibility and effectiveness of a regulatory framework- hence its ability to facilitate private investment- varies with a country's political and social institutions (Levy and Spiller,1995).Under totalitarian systems where there are no independent executive, legislature, and judiciary units, predation by the government agent is easier than in a democracy. But the risk of appropriation through changes in the rules and taxing etc can arise under democracy also. Under democracy, if there is room for discretion owing to non-transparency of the rules and there are high transaction costs of legal process, if elections, which change power among political parties, determine the status of the property rights, political risk escalates to the level of that under a dictatorship.

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[7] For example, the largest foreign investor in Russia, General Electric withdrew despite $600 sunk costs citing arbitrary and capricious taxation and an uncertain regulatory environment. In China, Matsushta had to face an increase in tax from 5% to 17% with only a few weeks notice in 1994 (Henisz, 1998).

[8] On the other hand, there can be instances where the government gets into strategic alliances with TNCs for production. In this government can have a stake in seeing through its success. One example is the collaboration between the Indian governemnt and the Japanese firm Suzuki to produce small cars in India in the early 80s. The Indian government gave highly preferential status to the undertaking by giving it the monopoly status in small car production for a long period. As a result it (Maruti-Suzuki) became the largest car producer in India. The other example could be the aircraft production in Brazil which came about the collaboration with the Brazilian government and TNCS (Goldstein, 2000). But here the TNC collaboration with host government can still pose contractual hazards if the

The degree of this risk differs across different industries depending on the extent of sunk costs of investment which means exit from a country involves writing off a large amount of investment. In the case of large infrastructure projects, which are natural monopolies, TNCs have to get into contracts with the government, which in turn provides scope for opportunism on the part of local government when a TNC invests huge sunk costs and gets locally locked-in. If the prevailing institutions in a specific country cause the transaction costs of contracts very high, it will discourage FDI in these industries. Transaction costs are higher when it is highly costly to understand and foresee contingencies and to formulate contracts in a clear manner. Furthermore, there have to be effective judiciary to monitor and enforce the contracts (Williamson, 1985). Contracts might be more incomplete in high tech industries than traditional industries because of complexity of technological change- an example is the interface among telecommunication, software, and cable TV industries in the present. Telecommunication and cable TV industries have natural monopoly properties where the government has a role in issuing licenses to investors. FDI in these industries in developing economies faces high risk if the institutional mechanism provide higher scope for discretionary powers and opportunism by the government.

In the case of appropriation of property rights by private agents, it takes place in two ways: one is through practices of counterfeiting and piration of intangible assets and the other is when TNCs get into joint ventures with local private agents. The necessary condition for the collaboration is that the contracts can be formulated safeguarding property rights and there is legal protection and enforcement. Why should a joint venture between a MNC and a local partner should take place can be analyzed on the basis of the modern property rights theory of the firm of Grossman and Hart (1986) and Hart and Moore (1990). A contract between two parties takes place when there is higher output through joint production than going alone.

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government behaves opportunistically. The examples can be several failures of TNC and the public sector collaborations in China.

Internalization (vertical integration) takes place when asymmetric incentives for further investment arise between the two parties of the contract. A joint venture between a TNC and local firm takes place if they possess different set of assets and the joint production causes higher output than going alone. One can treat a TNC's assets as the intangible assets and a local firm's assets as country specific institutional knowledge, and well-established distribution networks etc (Patibandla, 2001). The country specific institutional knowledge is more important in transition and developing economies in which the prevailing market institutions are complex and quite different from the matured capitalist economies. According to Williamson's (1985) theory of the firm and incomplete contracts, the lack of commitment through long-term contracts leads to under-investment in relationship-specific assets. If the prevailing institutions provides high scope for private agents to get away with opportunistic behavior, FDI into a specific industry will not take place when local institutional knowledge is crucial (transaction costs of doing business are high) for a TNC to enter the market.

The following issue is, given the focus of the paper, are there specific industries in which joint venture production is (country specific institutional knowledge) more important than others for FDI to take place. Joint venture with local partners may be more necessary for TNCs in those industries, where the country specific knowledge and distribution networks are important which newly entering TNCs lack.[9]

3.1. The Endowment of the Set of the Determinants and the Pattern of FDI

The discussion in the previous sections has shown different factors determining the pattern of FDI in emerging economies. In the following, we show how differences in the endowment of

[9]For example, in the case India's automobile industry, although the government of India allows fully owned TNCs, most TNCs such as Mitsubishi, Honda, Ford, General Motors, Toyota, Mercedes Benz have opted to enter through joint ventures. Only Hyundai has established a wholly owned subsidiary (Panagariya, 1999). One possible explanation is that for these TNCs it is important to have a local partner to deal with the Indian institutions.
Joint ventures is one of the possible entry strategies of TNCs into emerging markets for acquiring institutional knowledge in the initial years of entry. Once a TNC acquires the local

the set of the supply, and demand side and the institutional factors explain differences in the pattern of FDI among developing conditions. Table 3 presents an illustration of the set by taking the example of the information goods[10] and infrastructure industries. For example, a country that has all other conditions of necessary institutional conditions of property rights, credible policy commitment, but lacks skilled work force will attract FDI mostly into low-tech industries. If such a country has sufficiently large domestic market for (intangible asset-intensive) differentiated goods, serving the markets with exports is more viable than FDI unless TNCs invest substantially in training and education of local manpower. Here, TNCs have to measure the trade-off of the costs of investing in the training and the benefits of locating production closer to the market. The benefits of location are again a trade-off between costs of transportation, tariff barriers and costs of multi-plant operations (economies of scale).

On the other hand, if a country has endowment of skilled labor but lacks effective intellectual property rights regime, FDI does not come into high-tech industries. If FDI comes into the high-tech industries it will be mainly for utilizing low cost manpower for serving home and other markets through exports rather than serving the host country market. If a developing economy that has reasonably effective intellectual property regime, low cost skilled manpower and a growing local market, then FDI in the high-tech industry becomes highly attractive. This is because a TNC can take advantage of low cost skilled labor for international market and also serve the local market.

Another interesting case could be a developing country has the intellectual property rights on the paper and there is legal infrastructure, but the enforcement by the local governments could be weak. In such a case, a TNC has to invest in the enforcement costs if the local market is highly attractive. An interesting example is the Indian movie industry. India has

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institutional knowledge or the local partner gets access to the technology of the TNC over a period time, the joint ventures break up.

[10] Information goods are defined as those, which can be digitilized. Research and development costs of developing the good are very high but marginal costs are close to zero. The examples are software, and movies (Shapiro and Varian,1998).

a very well defined copyright act and the legal infrastructure but the enforcement had been very weak. It has a large market for both locally made movies and the Hollywood movies. There had been high levels of pirating of movies by the video-parlor industry. In the recent years, the Hollywood studios, which opened offices in India, started to invest significant resources in the enforcement of the copyright act by cooperating with the local enforcement agencies. Another similar case is the India's software industry, which we will discuss later (Patibandla, Kapur and Petersen, 2000).

Among the developing economies, China, Mexico, Brazil, Argentina, Indonesia, India Thailand attract a major share of FDI flows (see Table 4). Most African nations attract a very little investment and most of it is for extracting natural resources (World Investment Report, 1999, UNCTAD)[11]. China, Mexico, Brazil, Argentina, Russia and India possess the necessary supply and demand side factors to attract both horizontal and vertical investments: they have large and fast growing domestic markets for differentiated goods and services and a large pool of low cost semi-skilled and skilled labor. In the case of former Soviet Union countries, they have endowment of large pool of skilled labor and infrastructure base, but inefficient market institutions of property rights and non-credible government policies, which appear to discourage investment in high-tech industries and those industries with huge sunk costs (Heinz,1998). Among the ex-communist countries, Poland, Chzech Republic and Hungary attract major part of FDI. Apart of the reason is Poland started to develop market institutions much earlier than the other ex-communist countries.

The market institutional conditions- institutional environment and institutions of governance- are quite divergent in these countries with different historical and political backgrounds. It is not possible to examine all of these countries in this paper. We restrict ourselves to a brief comparative analysis of China and India with selective industry case studies.

[11] The reasons could be that most of these countries do not have endowment of skilled labor to produce differentiated goods and also law and order problems.

3.2. China and India: A Comparison

One commonly known feature of China and India is that they are the two most populous countries in the world and at the same time the fastest growing large economies. During the last 10 years China's economy averaged a growth rate of 8 percent and India around 6 percent. China opened up its economy to FDI to specific regional zones in 1978 and India started to undertake market reforms in the early 90s. Both the economies has a large pool of skilled and semi-skilled labor and a large and growing domestic market for differentiated goods from a sizeable section of rich and middle class consumers. The political and economic institutions of these economies are quite divergent. A review of the economies and the reform process can be seen in several other studies (Sachs, Varshney and Bajpai, 1999; Sachs and Woo, 1997; Branstetter and Feenstra, 1999). We briefly compare these economies for FDI flows and patterns.

As can be seen in Table 4, China ranks number one among developing economies for the magnitude of FDI inflows. It accounts for about 40 per cent total FDI flows into developing economies in the recent years. It is also estimated that about 80 per cent of it comes from the overseas Chinese mostly from Taiwan and Hong Kong (Henly, Kirkpatrick and Wilde, 2000). On the other hand, India attracts much smaller amount- it is about US $ 3 billion in 1997. There are several reasons given for this disparity. One is that China started opening up to FDI much earlier than in India and built up fine infrastructure base in the coastal regions. Consequently, the Chinese economy, which has been growing at rapid pace, presented a larger market than India. Second explanation is drawn from the pattern of investment. Table 5.a shows that 70 percent of FDI in China has been in the manufacturing. Huang (2000) shows a large part of FDI in China had been at the lower end of manufacturing by small firms from Taiwan. He argues that the Chinese government systematically discriminated against domestic private investment (firms) and favoured foreign firms and their collaborations with State Owned Enterprises. Because of the distorted incentives given to FDI, a major portion of FDI in

China is `round-trip', whereby a firm exports money, registers a company in Hong Kong or Singapore, brings the money back as FDI to make use of the incentives given to FDI.[12] Furthermore, while the foreign firms have been given legal protection of the property rights since 1979, the local private entrepreneurs were not given until 1999 (also see David D.Li,1996).

India has a large base of matured private sector both at the large scale and small-scale (unorganized) production, which took care of most of the lower end manufacturing and assembly line and commercial service sector. As shown in Table 5b, major part of FDI in India had been in infrastructure sector such as Telecommunications, Transportation, and Power and Fuels and service sectors such as the software rather than manufacturing. At even more interesting side, Indian economy is transforming rather prematurely into a service economy. At present, 52 per cent of GDP of Indian economy is accounted by the service sector while it is 30 percent for China. Consequently, significant amount of FDI is flowing into the service sector at present into the areas such as the call centers, insurance and medical transcript processing and financial services such as credit cards etc. One of the reasons attributed for this is the endowment of large pool of educated and English speaking workforce. One other reason is that in the recent years significant amount of foreign capital is flowing through portfolio investment. India's stock market dates from 1875. At present, it has about 9,000 listed companies with about $ 200 billion in market capitalization. It has established legal, accounting, and financial systems and institutions; entrenched property rights; and a thriving private sector[13]. Portfolio investment represents a lower risk as the capital can be moved in and out in short notices than FDI, which requires investment in fixed and sunk costs. In the recent years, increasing role of foreign institutional investors (FII) in the Indian capital markets in terms of influencing the stock indices and performance of individual companies stock prices

[12] In India's case, a fair amount of FDI is routed through Mauritius because of the tax haven treaty, which guarantees complete tax exemption from Indian taxes. This gives a distorted incentive to investors coming through the Mauritius route than local investors.

induced Indian firms to improve corporate governance of transparent accounting practices and focused business undertakings (Ghemawat and Patibandla, 2001). This in turn provides further boost to portfolio investments. Following the modern property rights approach, for investment in stock market to take place the shareholders should have both ownership and control rights. They should have information about how their investment is used, which requires strong corporate governance practices governed by the legal infrastructure, private monitoring and enforcement and the market discipline. The control rights are weak in the transition economies such as Russia and also China. India, at present, fares better on this. High market transaction costs associated with FDI owing to the government policies at the Federal and regional level in the Indian economy makes investors to substitute portfolio investment for FDI.[14]

The above pattern of FDI in China and India is a result of differences in the market institutional conditions and prevailing industrial endowments. China and India differ significantly in the market institutional conditions and the political systems. Politically China has been a communist: a monolithic dictatorship of one party with a single individual wielding vast power. India has been a Federal Democracy with independent judiciary with powers widely diffused[15]. Given the common feature of large and growing domestic markets and endowment of skilled labor, the differences in the institutional conditions determine the pattern of FDI in these countries at present. We illustrate this by taking the case of software industry and infrastructure investment in the following.

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[13] Furthermore, English as the language of business and government makes working in India is far easier for foreign companies and investors.

[14] It is generally observed that many TNCs that win the Indian government approval to invest never actually proceed. In recent years, about $ 10 billion a year in approvals has been granted but actual investment rate is about $ 2.5 billion.

[15] Absence of independent judiciary makes property rights highly weak if they are on paper. Ahlstrom, Bruton, and Lui (2000) show that in China firms can be given permission to operate in a certain market, and a year or two later that permission can be withdrawn arbirtrarily. Corporate assets can be seized while disputes are resolved. If a court judgement is given in favor of a private firm but local officials do not agree with the ruling, they can refuse to comply.

3.2.1. The Case of Software Industry

China has a larger domestic market for the IT industry- the software and hardware segments. In 2000 only about 4.3 million own PCs, while fewer than 1.4 million are Internet subscribers in India. In China's case, in the year 2000 alone about 6 million PCs were sold and about 16 million are Internet subsribers. China attracts a large amount of FDI (about $ 6 billion) in the hardware segment with IBM, INTEL, NEC and Hewlett and Packard having set up large subsidiaries but smaller investment in the software segment. One of the reasons is the Chinese law that multinationals can sell their computers in the country only if they have a manufacturing base there.

Interestingly, in contrast to China, India has been attracting larger investments into the software industry- both for programming and Research and Development. All most all of the large American IT firms have set up Research and Development in centers and have plans to expand them in a big way in India (Patibandla and Petersen, 2001). One general explanation given for this is that India's skilled labor is good at English language, which China lacks. But the underlying factors are a little more complex and have to be drawn from the differences in the institutional conditions such as the intellectual property regimes. It is necessary to note that in the case of information goods such as the software, production in the host economy is not necessary for serving the local market because for the information goods marginal costs of reproduction and transportation costs are close to zero.

Software products are information goods characterized by high fixed costs of R&D and marketing but negligible marginal costs of reproduction (other information goods are movies, music etc, Shapiro and Varian, 1998). The negligible marginal costs information goods makes pirating very easy. On the other hand, in the case of hardware, pirating is not easy because of positive marginal costs and technological complexity of producing semi-conductors.

China is considered biggest source counterfeited software products owing to its weak intellectual property rights regime and poor enforcement. About 90 per cent of the software in

use are counterfeited. Even the Chinese government is observed to be one of the worst offenders (News Day, February 7, 1995).[16] Microsoft-China's CEO, Jack Gao observes "We have a lot of users, but we do not have a lot of customers." (Business Week On Line Dec 11, 2000). Why has Microsoft invested and continue to stay in China? One explanation, we provide is that Microsoft operating systems has lock-in characteristics- once an user gets trained to use the operating system, he/she has to invest significant costs to switch to a different operating systems (Shapiro and Varian, 1998). A first mover firm who is able to lock-in users will always have an advantage over late-movers. Microsoft's strategy could be that once China joins WTO, by then it has locked-in a large number of users on whom it can leverage in the future.

In case of India, the law offers effective protection of copyrighted material- the Indian copyright act of 1957 is based on the Berne Convention on Copyrights. The act was amended in 1995 to make it on par with the most modern law in the field.[17] In the recent years, India's software industry association (NASSCOM) in cooperation with the government agencies undertakes the enforcement of the act (Ghemawat, Patibandla and Couglin 2000). The growing importance of the domestic software industry provides an incentive to the government to undertake enforcement in an effective manner. Consequently, it provides the necessary institutional conditions for TNCs to invest in India for software development for the global market, Research and Development and for serving the growing local market (Patibandla and Petersen, 2001).

Furthermore, as discussed in Section 2.1, the software industry cluster in Bangalore has become a technologically dynamic one providing strong agglomeration effects. The low cost skilled labor combined with the agglomeration benefits of the cluster provides strong comparative advantage to TNCs to use it as a location for producing for the international markets. On the other hand, China does not seem to have developed any significant high-

[16] It appears Chinese firms export counterfeit software in a large way.

tech industry clusters. The industry and technology zones promoted by the Chinese government led to concentration of a wide range of industries in specific locations but not to a specific industry cluster.

3.2.2. The Case of Infrastructure Projects

Both China and India offer a huge market for infrastructure projects in Electricity generation and distribution, Telecommunications, Ports, etc with potentially high returns on investment. As mentioned earlier, infrastructure investment is subject to high risks owing to large sunk costs and long gestation periods. The natural monopoly nature of these investments makes the government intervention pervasive from granting licenses and contracts (bidding) to the regulation. The regulatory aspect of investment is important because of highly politicized pricing of utilities such as electricity and telecommunications. Because of the sunk costs and long gestation periods, the institutional aspect of credible commitments by the government regarding future policies is crucial.

China has been attracting larger investments in infrastructure than India. Apart from the market size issues, the differences in the institutional aspects provide significant explanations. We look at it at two levels: one is the process of government clearances and the process of government regulatory mechanisms. In the case of India's federal democracy clearance of large projects is a lot more complex involving the Federal government at the center and the state government and several other regulatory agencies such as the environmental regulation. The regulatory decisions governing issues such as zoning, land-use and environment varies from one state to the other. [18]

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[17] On the other hand, India's patent protection is weak- it gives patents to processes but not to products. Consequently, it discourages FDI in the pharmaceutical industry.

[18] Foster's brewing company had to endure a 11 year process of getting the government investment and brewing licenses. Once the investment took place, the company has been growing very rapidly owing to rapidly increasing domestic demand for beer.

The regulatory system also allows leeway for bureaucratic discretion. Apart from this, the government clearances of the projects, if suspected of corrupt practices can be politicized by the strong and independent press, which can delay projects. Furthermore, the independent judiciary can also be a source of high transaction costs. For example, the Enron Corporation in the electricity generation had to fight about 27 court cases filed by the private parties on the public interest litigation and environmental grounds.[19] On the other hand in the communist China the centralized nature of the decision making of clearance of large project FDI proposals provides a clearer signal for the target of negotiation for investors. Secondly, the government contracts are not subject to litigation by the private parties.[20] But at the same time, the centralized decision making causes contractual hazards of cancellation easier than in a democracy where the judiciary and different layers the government provide safeguards to contracts. This is illustrated by the following cases.

3.2.2A. The Case of Daphol Power Corporation (Enron) in India

The case of Enron in India shows high market transaction costs of contractual hazards, and safeguards for FDI in large infrastructure projects in a developing economy with inefficient market institutions. It also illustrates market transaction costs of political process when specific market institutions are missing in the context of a democracy. For example, if the market institutions of competitive bidding with transparent process are missing, it results in political controversies. This in turn causes high transaction costs of project delays.

The new power policy announced by the Government of India (GOI) in 1991 allowed private investment in the power sector. In 1993, the subsidiary of the Enron Corporation, the Dabhol Power Company (DPC) entered the Indian market in the state of Maharastra for

[19] Recently four TNCs have pulled out of power projects in India citing bureaucratic and legal delays and costs.

[20] One of the possible reasons many western companies invest in the manufacturing industries is that they are not subject to any legal litigation on the grounds of consumer interests both within China and in the home countries served by exports from China. This is pointed to us by one the executives of a TNC in India during informal discussions.

generation of 695 Mega Watts of electricity with a proposed investment of $ 2.8 billion. The contract was formulated and signed by the three parties- the Central Electricity Authority (CPA), the Maharastra State Electricity Board and DPC. The electricity was to be purchased by MSEB at a negotiated price. The contract was formulated in the absence of competitive bidding and under non-transparent procedures which caused a series of controversies, cancellation, and renegotiations (Mehta, 2000).

In 1995, the elections changed the parties in power in the state of Maharastra. The new Government re-examined the terms and conditions of the contract. After a detailed examination by a special cabinet committee, the Government of Maharashtra (GoM) concluded that the contract was not in public interest and cancelled it. In order to legally substantiate the cancellation, the Government of Maharastra filed a suit in the Bombay High Court. The GoM presented several documents from the records of the government to substantiate the various allegations. Interestingly, within three months, the government backtracked on its decision without providing any reasons. It renegotiated the contract without any change in the old contract. In August 1996, DPC and MSEB got into the agreement that DPC would supply about 2000 MW of electricity in the form of available capacity and gas for a period of twenty years.[21] Numerous safeguards were incorporated into the contract for protecting the investment and the future payments by MSEB to DPS for the purchase of electricity. These safeguards included the Power Purchase Agreement, the Guarantee by the state of Maharashtra, the State Support Agreement, the Counter Guarantee by the Union of India and the tripartite agreement between the GoM, the GoI and the Reserve Bank of India. The Power Purchase Agreement specifies that MSEB had to buy all the power produced by DPC whether there was demand for it or not and even if cheaper power available from other sources (MNC Masala, www.corpwatch.org). The state government had put a lien on all its assets: past, present and future in this respect. The Republic of India counter-guaranteed the

payments due to DPC. In the case that the Government of Maharashtra defaulted in its guarantee, the government of India would be liable for some of the payments due. The GoI would directly deduct from the constitutionally sanctioned share of revenues due to the state of Maharashtra in case of the GoI having to make any payments. Arbitration in the event of a dispute over the counter guarantee would be under English law in England in exclusion to Indian law.

By year 2000, the MSEB refused payments to DPC owing to its financial bankruptcy to the tune of Rs 790 million for November and Rs 1520 million for December charging DPC that it had been charging higher price than its unit costs. Consequently, DPC, decided to invoke central government's counter guarantee on February 6, 2001. On February 12, 2001 the minister of power at the Federal government announced it would pay all the dues of the Maharashtra State Electricity Board to DPC. He announced that GoI would not default on its contractual obligations with DPC by saying, "We will pay DPC all unpaid electricity bills of MSEB which contractually fall on us. The Government of India has never failed in fulfilling any of its obligations. We will never default on our contractual commitments to anyone." (Economic Times, February 12, 2001).

The above case shows that the investor's rights were protected by contract through a costly and difficult process but with high transaction costs of inefficient institutions. Part of the transaction costs is because of missing institutions at the time of contract formulation such as the competitive and transparent bidding process. These transaction costs would be much higher in a democratic polity than in a totalitarian system because of political power various interests groups and litigation by private parties. Apart from this, in the context of high uncertainty owing to incomplete nature of contracts, the costs of safeguards are higher. There will be an incentive for a TNC to recover the investment in shorter period by inflating the project costs. These costs result in higher product prices to consumers, which in turn could be highly

[21] The payments due on the renegotiated contract constitute the largest contract in India's. Annual payments to DPC amount to about $ 1.4 billion. Total payments amount to about US$

politicized.[22] Interestingly, in this case of the DPC in India there are no costs associated with the regulation to the TNC as the purchaser and distributor of electricity is the state government agency (MSEB). On the other hand, in China the clearance of the project could be easier but operating it could be subject to high transaction costs because of discretionary powers of government agents both at the center and local levels. Nevertheless, China attracts larger investment infrastructure projects than India possibly its larger market offsets the transaction costs. In comparing the prospects of FDI in China with other Asian countries, Thornhill (2001) observes "The investor's rationale appears to be: why bother trying to understand the intricacies of small and fiddly markets when you can deal with one pragmatic if sometimes brutal, giant?"

3.2.2.b. The Infrastructure Investment in China

China offers huge market for infrastructure investment. Its Ninth five-year Plan unveiled infrastructure investments worth over $300 billion and about 20 per cent of it is expected to be met by FDI. China, similar to India, also presents a case of high market transaction costs for FDI- there are about 150 laws and regulations covering FDI in China (Jo Winter, Cracking China, Corporate Location, Sept 1999). Inconsistency in the enforcement and weak judicial protection causes non-credible commitments and high costs of transactions. China and India differ in terms of at what level the costs are high: at the clearance level and at the operation level. The centralization of the powers in clearing of large projects makes this process subject to lower transaction costs in China than in India. But at the operation level, China poses higher transaction costs owing to predation by the local government agents as the local governments hold significant regulatory powers and enforcement. As the rules are not transparent and clear, the regulation is subject high discretion by the local agents. At the operational level, firms have to invest significantly in transaction costs of cultivating local government officials. Because of

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35,000 million dollars over the life of the contract (Bidwai,1997).

the varying power structures and idiosyncratic, personal and local nature of law and regulation in China, these transaction costs vary between different regions (Ahlstrom, Bruton and Lui, 2000)[23]. Contractual hazards are higher in China as contracts are not safeguarded by an independent judiciary. But unlike in India, the projects do not face transaction costs associated with private litigation on private interest and environmental grounds.

We illustrate the above observation by the case of the Laibin B Power plant in Guangxi province in China (Gailey, 1997). This was the first power project entirely financed by the foreign capital ($ 616 million). It was cleared by the Chinese authorities within 14 months. The Chinese government at the center wanted to provide strong boost to infrastructure investment and give a signal to the international investment community that FDI is highly encouraged in this sector. Even in the absence of legal framework of BOT (build-own-transfer), the Chinese government minimized the transaction costs of clearing the project speeding up the process. This was made possible by the government at the center despite the involvement of several ministries in making the clearance because the power vested in the center. This project clearance is considered a huge success owing to the low transaction costs and short time taken for clearance. This in turn provides incentives other TNCs to enter the infrastructure investments in China. As mentioned before, this type of clearance is not feasible in the federal democratic India because of different layers of decision making and the importance of vested interest groups and the independent judiciary (private litigation).

4. Conclusion

This paper has identified a set of factors from the supply, demand and institutional side, which determine the pattern of FDI in developing economies. Differences in the endowment

[22] For example, DPC charges price ranging between Rs. 3.01 to Rs.4.25 for kwh of electricity while a local firm, the Tata Electric Company offers it at Rs.1.40.

[23] These transaction costs in terms of practicing different forms of guanxi which include coopting strategies in terms of offering shares to local officials, hiring people within government and entertaining the government officials, etc.

of these factors in a set explain the differences in the pattern of FDI across the countries. There are quite a few other factors this paper did not take into account such as the macro economic stability, and government incentives to FDI. Secondly, the approach of the paper is to look at the differences in the endowment of the set at any given point of time. The concept of `developing' or `emerging' economy refers to changes in the set over a period of time: increase in incomes (wages), skills, technology and declining transaction costs. There can be a two-way causation between the determinants and the pattern of FDI. This changes the endowment of the set and the pattern of FDI over a time period. How effective this process depends on the endowment of initial conditions in attracting FDI into specific industries. To illustrate this, the literature on FDI has shown the importance of spillover effects.[24] In the case of India's software industry, the initial condition of endowment of skilled labor provided incentive for TNCs such as Texas Instruments and Hewlett-Packard to enter the Indian industry in the mid-eighties. This resulted in technological and informational externalities to local firms and labor, which further enhanced the skill and technological endowments in India. By the early nineties, the Indian software industry became major wealth generator. This in turn caused in changes in market institutions: it provided incentive to the Indian government to amend the copyright act in 1995 and enforce it more effectively. This in turn provided further incentive for TNCs to enter the Indian market not only for exports but also for serving the growing local market. Similarly, the emergence of the automobile cluster in the southern coast of India is caused by the entry of TNCs but the entry of TNCs is a result of the initial conditions of large growing domestic market, and skilled workforce. Similarly in the case of China, the entry of FDI into manufacturing both at the low and high end since 1979 facilitated local firms to acquire the skills through the spillover effects. Consequently, it makes TNCs to exit from the low-end manufacturing.

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[24] Dunning and Narula (1996) analyze the dynamic aspects of FDI and economic growth.

The link between the political institutions and (changes) in market institutions is a complex issue- on certain aspects democratic polity besets efficient market institutions and other totalitarian dictatorships beset efficient institutional outcomes. As illustrated in the previous section, in China's monolithic party dictatorship the clearance of large projects is more easier than in the India's complex federal democracy because of different layers of power and vested interest groups. At the same time, the protection of contracts, once formulated, is better under the Indian democracy.

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Table 1: Pattern of FDI

Low-Tech	High-Tech	Information goods	Infrastructure	Resource Extraction
Garments Shoes etc	Semi-conductors Electronics Automobiles	Software, Movies, Books (Digitilization) Marginal Costs=0	Power, Telecom (Sunk Costs)	Petroleum Minerals TNCs as Islands

Table 2: The Determinants

Supply Side Factors	Demand Side Factors	Institutional Factors
Skilled and Semi-skilled labor	Local Market Size	Property Rights Intellectual Property Rights
Technology Institutions (Universities, Research)	Income Distribution Pattern of Demand	Credible Commitments of the policy
Infrastructure (ports, roads)		Market Transaction Costs
Industry Clusters		Transparent Regulation
Agglomeration benefits		Independent Legal Bodies

Table 3, The Set: Examples

Information Goods		Infrastructure
Conditions For Domestic Market	Conditions For Exports	
Local Market Size		Market Size
Skilled labor	Skilled Labor	Property Rights
IPRs		Credible Commitment of the Policy
Technology Institutions	Technology Institutions	Transparent Regulation
Clusters	Clusters	Independent Legal Bodies
Example of China	Indian Software Industry	

Table 4. FDI in Developing Economies. US $ Billion

Country	1991	1992	1993	1994	1995	1996	1997
All developing economies	33.5	43.6	67.2	83.7	95.5	119	120.4
China	4.4	11.2	27.5	33.8	35.8	42.3	37.0
India	-	0.23	0.55	0.97	2.1	2.4	3.5
Mexico	4.7	4.4	4.4	11	7	6.4	8.1
Malaysia	4	5.2	5	4.3	5.8	6.2	4.1
Brazil	1.1	2.1	1.3	3.1	4.9	5.5	15.8
Indonesia	1.5	1.8	2	2.1	4.3	5.8	5.8
Thailand	2	2.1	1.8	1.4	2.1	2.9	-
Argentina	2.4	2.6	3.5	0.6	1.3	2	3.8
Hungary	1.5	1.5	2.4	1.1	4.5	1.7	-
Poland	0.3	0.7	1.7	1.9	3.7	4.2	4.5
Chile	0.5	0.7	0.8	1.8	1.7	2.2	3.5
Sub-Saharan Africa	1.6	0.8	1.6	3.1	2.2	3.3	3
Middle-East and North Africa	1.8	2.2	4.2	3	0	0.6	2.6

Source: World Bank 1998

Table 5.a.., Pattern of FDI in China 1979-99 US $ 100 million

Industries	Number of projects	%	Value	%
Total	341.538	100	6,1317	100
Farming, forestration, husbandry, fishing	9,534	2.79	108.27	1.76
Manufacturing	249,352	73.01	3,655.47	59.5
Building	8,826	2.58	188.6	3.07
Transportation, traffic, post and telecomunications	3,721	1.09	149.69	2.44
Wholesales and retailing, catering	17,558	5.14	219.6	3.58
Real Estate and Public Services	33,877	9.9	1,499.77	24.4
Hygiene, sports social welfare	999	0.29	46.17	0.75
Education, culture, arts broadcast, movies and TV	1,317	0.39	20.4	0.33
Scientific research and technological services	2,410	0.7	18.7	0.3
Others	13,944	4.08	230.45	3.75

Source: Economic Intelligence Agency

Table 5b. Pattern of FDI in India, 1991-1998, Rs. Billion

Sector	Inflow value	% in the total
Fuels	2650.47	6.77
Electric Equipment	3577.12	9.14
Telecommunication	3706.42	9.47
Transportation	3528.91	9.02
Metallurgical Industry	441.65	1.13
Industrial Machinery	256.38	0.66
Machine Tools	137.46	0.35
Fertilizers	69.66	0.18
Chemicals	3295.9	8.42
Dye Stuffs	46.41	0.12
Drugs and Pharmaceuticals	690.5	1.76
Textiles	679.35	1.74
Paper and Pulp	681.52	1.74
Food Processing	1904.93	4.87
Leather Industry	110.33	0.28
Cement	155.73	0.4
Service Sector	3485.07	8.91
Software	80	3.6
Trading	539.9	1.38
Hotel and Tourism	246.5	0.63
Miscl. Industries	3029	7.7
Other	9900	25
Total	39133.8	100

Source: India Investment Center