

THE ROLE OF FDI IN INDIAN GROWTH AND  
INFRASTRUCTURE DEVELOPMENT

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## **Abstract**

India has seen significant changes in its foreign policy over the past 20 years. The 1991 balance of payment crisis allowed India to embrace international trade by inviting foreign direct investment (FDI) into various sectors within its economy. The significance of these changes has made India the second most attractive destination for FDI behind China.

The increase in FDI in India has coincided with the government's ability to change to a market-oriented economy. By opening its economy to international trade, India has seen a rise in the number of multinational corporations that have moved their operations from their home country. Infrastructure development has benefitted from these enormous changes, with various sectors, including telecommunications, ports and roads, seeing an increase in the number of projects being initiated through the involvement of foreign investors.

This paper will aim to highlight the changes that India has gone through since 1991 in the liberalisation of its economy. Furthermore, it will demonstrate how India has grown both, socially and economically, through the encouragement of FDI, comparing the country's performance to other emerging economies. Finally, it will show how FDI has helped to improve India's infrastructure development programs, and the challenges the country still faces in providing a standard of living comparable to the developed world.

**Keywords:** Foreign Direct Investment; Multinational Corporations; Liberalisation; Infrastructure Development

**JEL Classification:** O18, F21

## Resumo

Nos últimos 20 anos, a Índia tem vindo a observar mudanças significativas a nível da sua política com o exterior. A crise de 1991 da balança de pagamentos permitiu de certa forma a abertura ao comércio internacional, em termos do Investimento Directo Estrangeiro (IDE). Desta forma, as significativas reformas tornaram a Índia o segundo país mais atractivo para o IDE, logo após a China.

Por outro lado, o aumento do IDE na Índia coincide com a maior abertura do governo para uma Economia mais aberta, ou seja, mais orientada pelas leis do mercado. Ao abrir a sua Economia ao comércio internacional, observou-se um aumento na deslocação da produção de empresas multi-nacionais para a Índia. Assim, existiu um massivo desenvolvimento a nível das infraestruturas locais, que beneficiaram com a produção estrangeira, tendo sido estes benefícios transversais a vários sectores, incluindo as telecomunicações, portos e estradas, que assim tiveram um aumento do número de projectos desde o envolvimento de capitais estrangeiros.

Esta dissertação tem como objectivo destacar as principais mudanças pelas quais a Índia passou desde 1991, com a liberalização da sua Economia. Por outro lado, pretende demonstrar como a Índia se desenvolveu tanto a nível social como económico, através do incentivo ao IDE, através de uma comparação com o desempenho de outras economias emergentes. Finalmente, irá mostrar a influência do IDE no desenvolvimento de infra-estruturas, assim como terá em consideração os desafios que Índia continua a enfrentar em termos da qualidade e nível de vida, comparando com países desenvolvidos.

Palavras-chave: Investimento Directo Estrangeiro; Empresas Multi-nacionais; Liberalização; Desenvolvimento de infra-estruturas

Classificação JEL: O18, F21

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**List of Abbreviations**

- BRIC – Brazil, Russia, India and China  
ECB – External Commercial Borrowing  
FDI – Foreign Direct Investment  
GDP – Gross Domestic Product  
IMF – International Monetary Fund  
IPO – Initial Public Offering  
MNC – Multinational Corporation  
MNE – Multinational Enterprise  
NIC – Newly Industrialised Countries  
OPGC – Odisha Power Generation Corporation  
PPP – Public-Private Partnerships  
SEB – State Electricity Board  
SEZ – Special Economic Zone  
U.S. – United States

## 1. Introduction

Foreign Direct Investment (FDI) is defined as “cross-border expenditures to acquire or expand corporate control of productive assets” (Froot, 1993). India has seen a rapid increase in FDI over the past 15-20 years, which has contributed to their status as an emerging economy. With this influx of foreign investment being poured into India from all four corners of the globe, there has been an enormous emphasis on developing world-class infrastructure in order to sustain the continuing growth of a country that has multiple divides. Foreign firms are setting up joint ventures and wholly owned enterprises in services such as computer software, telecommunications, financial services, tourism and manufactured goods including, transportation equipment, chemicals and pharmaceuticals (Bloodgood, 2007).

The Indian economy is growing continuously, with Gross Domestic Product (GDP) surpassing 8% every year since the early 2000's. The reason for this is the government's commitments to renew a declining interest in India's agriculture and construction sectors. In addition to this, the government's willingness to evaluate its fiscal and investment policies in 1991, contributed to the increase in Multinational Corporations (MNC's), increasing their investment in a country with so much promise and potential. This paper will elaborate on why these changes came about and to what extent this can help India in the long term regarding FDI and its continuing development in infrastructure.

According to UNCTAD (2007), India has emerged as the second most attractive country in the world for FDI after China. However, this has not always been the case. The change in attitude towards FDI is a consequence of a decline in alternative sources of finance such as bank credit, the success of other emerging economies such as Brazil, Russia and China (together with India make up the BRIC countries), and education of MNC's and their operations abroad.

India has made it a key priority to build world-class infrastructure in order to provide better conditions for the public. Over the last 20 years, numerous projects have taken place in order to provide better infrastructure such as railway lines, public roads, irrigation and technology in order to keep up with the rest of world. India is relying on foreign investment, due to numerous policy changes that have occurred since 1991, to meet its infrastructure targets.

Substantial investment in infrastructure has shown to be necessary in order to sustain growth rates for the Indian economy. In order to do this, many publicly owned infrastructure enterprises have changed its structure to allow the private sector to compete. According to Thomsen and House (2007), “with the exception of telecommunications, the shortcomings of Indian infrastructure impede the traditional growth path witnessed in other Asian countries or rising agricultural productivity followed ultimately by export-led development”.

The next chapter will be a review of literature that has taken place in the field of FDI, especially focusing on India. It will also highlight where previous research has been conducted to show how the level of FDI has increased in infrastructure development, through various government schemes and subsequent projects.

As mentioned above, policy changes in 1991 allowed for India to attract more FDI in order to boost the economy, as well as infrastructure development. The third chapter will look at the reasons behind why Indian economic policies were changed in order to increase the inflow of FDI.

The fourth chapter will look at the definition of FDI and its determinants. Since India has seen a rapid increase in the level of FDI inflow, the chapter will aim to identify why they have been such an attraction for foreign investors. In addition to this, there has been an increase in MNCs in India since 1991. Therefore, this section will highlight the advantages and disadvantages of MNCs moving their operations to India, either through the acquisition of a domestic company or a joint venture.

The fifth chapter will discuss how FDI has played an important role in infrastructure development in India. It will highlight specific sectors where projects have been planned and implemented through government and private participation. It will also show the challenges that India still faces in the development of its infrastructure and how they propose to increase investment, especially within the private sector, in the next 5 years.

The final chapter will aim to highlight how India has developed its FDI program against the rest of the world, notably comparing against Brazil, China and Russia, which make up the

BRIC nations. The section will look at FDI trends and how these countries compare to India when attracting FDI.

## 2. Literature Review

This paper will discuss how India, through a balance of payment crisis and governmental policy changes, has integrated with the world economy by embracing FDI to improve economic growth and infrastructure development. There have been many published articles and books surrounding the impact of FDI on a country and its economy. These studies have been extended to show the role that FDI has played in India by discussing why the country is such an attractive proposition for foreign investors.

As mentioned before, the first part of this paper will look at how the Indian economy has evolved since the crisis of 1991. Rajan and Sen (2002), in their paper “A Decade of Trade Reforms in India”, highlighted India’s trade patterns before 1991, looking at the way the government dealt with internationalisation and liberalisation. They stated that “prior to 1991, India was the archetypical import substituting regime”, and since 1991, “India has made some important strides since the initiation of the reform program in 1991, and has been one of the fastest growing economies in the world” (Rajan and Sen, 2002). Rajan and Sen demonstrate how FDI in India has increased significantly since the 1991 reforms, highlighting the importance of the information and communications technology industry as a booming sector in achieving this goal.

“India’s Emerging Economy: Performance and Prospects in the 1990s and Beyond”, written by Kaushik Basu (2004) also discusses the economical and policy changes that India went through to become an emerging market with enormous potential. In the publications opening line, Basu (2004) describes India’s economy by stating that “with the exception, perhaps, of the years immediately following India’s independence, never before has there been so much optimism about the Indian economy as in the last decade”.

Srinivasan and Tendulkar (2002), in their book “Reintegrating India with the World Economy”, explain how the 1991 crisis was a major turning point for the Indian economy. They explain the reasons why change was imperative in order to integrate India with the rest of the world in terms of international trade. Srinivasan and Tendulkar (2002) discuss how “the severity of the economic crisis of 1991 provided an opportunity for the government to undertake major microeconomic policy reform of long-standing restrictive domestic

investment and international trade policies”. Further research also contributed to the growing debate over FDI in India. They outline how policy changes helped to increase the inflow of FDI, with Indian government officials believing that in order to sustain economic growth, an increase in private sector investment was essential and regulations needed to be loosened.

One of the main advocates of FDI is John H. Dunning, who was a researcher on the economics of FDI and the multinational enterprise. In 1979, Dunning put forward the notion, that FDI within a country was positively related to its economic development, at a conference on “Multinational Enterprises from Developing Countries”. This concept has been revised throughout Dunning’s publications in the 80’s and 90’s, where he published a book in 1996, along with Rajneesh Narula, on “Foreign Direct Investment and Governments”. In this book, an article written by Nagesh Kumar named “India: Industrialisation, Liberalisation and Inward and Outward Foreign Direct Investment”, puts Dunning’s theory of FDI into realisation with India as the focal point. Kumar believes that India benefitted greatly from FDI policy changes and that “liberalisation of policy removed the barriers that were neutralising the internationalisation advantages of foreign investors to the country” (Kumar, 1998).

Laura Bloodgood’s (2007) paper on “Competitive Conditions for Foreign Direct Investment in India” discusses FDI trends in India, both country-wise and sector-wise. It aims to show which countries have made the most contribution, in terms of FDI, towards India’s economy and which sectors have benefitted from this investment. The paper highlights how the double-taxation treaty between India and Mauritius has made the country the largest direct investor in India. It also concludes that “the service sector has been the primary destination of FDI in India since 1991” and that “the service sector accounted for 17% of total FDI inflows to India between August 1991 and December 2006” (Bloodgood, 2007). This finding is backed up by Ila Chaturvedi (2011) in the paper, “Role of FDI in Economic Development of India: Sectorial Analysis”. This paper explores this area further by discussing how FDI has helped various economic sectors, in terms of development and expansion.

Singhania and Gupta (2011) conducted a study using FDI as a conclusive indicator in their paper on the “Determinants of Foreign Direct Investment in India”. Singhania and Gupta (2011) focused on the belief that “As India moved from policies of import substitution to

export promotion, it was able to attract more and more FDI". This paper produces an empirical study on the determinants of FDI and relates them to the case of India, using macroeconomic indicators, including GDP, inflation rates, interest rates and foreign trade.

Yadong Luo (2002), in the book "Multinational Enterprises in Emerging Markets", explores the role of MNCs in less developed nations by assessing the environment and the attractiveness of the location in which they shift their operations. Singh et al. (2003), explores the role of MNCs in India, discussing the impact that multinational enterprises have had on the Indian culture and economy. Emde (1999) extends this further, in the paper "An Analysis of the Effects of MNCs on India Since Liberalisation". This paper argues whether MNCs have had a positive or negative impact in India and what they have brought to the country, including technological know-how. It also discusses how liberalisation in India has allowed MNCs to enter the market, countering with the challenges and obstacles that they still need to overcome in order to continue attracting more foreign investors.

Mohan (2004), addresses the infrastructure development that has taken place in India since the 1991 reforms in his paper, "Infrastructure Development in India: Emerging Challenges". Mohan shows how private sector investment, by both domestic and foreign firms, have achieved numerous goals in infrastructure development, which has consequently lead to a rise in economic growth. The paper also gives a sectorial review, highlighting project developments in the road, telecommunications and ports sector amongst others.

This study is conducted further by Thomsen & House (2007) in the paper "Infrastructure and Indian Development: Reform First, Invest Later". It expands on the notion of Public-Private Partnerships (PPP), which is extensively used in Indian infrastructure development. This paper highlights the trends, through FDI, and in particular PPP, that India has gone through, and which sectors have benefited the most from this type of infrastructure investment scheme.

There have been numerous papers written by top-level investment banks and consultancy firms, showing the opportunity for foreign investors in India. The PWC report titled "Infrastructure in India: A Vast Land of Construction Opportunity", describes the environment surrounding Indian infrastructure development, including the opportunities in various sectors and the challenges that India still faces. Further evidence to show why India is

an attractive destination for FDI in infrastructure development is produced by Deutsche Bank, in their 2007 report, “450bn Reasons to Invest in India’s Infrastructure”.

India will always be compared to other emerging markets such as Brazil, China and Russia. Jim O’Neill (2001) suggested the term “BRICs” in his report “Building Better Global Economic BRICS”. His research highlights the optimism surrounding the growth potential of these four nations. Purushothaman (2004), expanded this study, by comparing India to the rest of the BRIC nations in the paper “India: Realising BRICs Potential”.

Sauvant (2006), in his discussion paper, “Inward and Outward FDI and the BRICs”, outlines how India and the rest of the BRIC nations encouraged FDI. Sauvant (2006) stated that “The BRICs saw their FDI inflows grow, from \$3 billion in 1984 to \$98 billion in 2004”. Wilson and Purushothaman (2006), compare the BRIC nations with each other in their paper “Dreaming with the BRICs the Path to 2050”. Their findings suggest “in less than 40 years, the BRICs economies together could be larger than the G6 in US dollar terms” (Wilson and Purushothaman, 2006).

The following section will look at how the Indian economy has evolved over time by making policy changes in order to reintegrate itself with the world economy, which led to the FDI boom of the 90’s.



### **3. The Indian Economy**

India has the world's second largest population after China. In addition to that, it is one of the most rapid growing economies, expanding at an annual rate averaging about 6% over the past two decades (Srinivasan and Tendulkar, 2002). However, this has not always been the case, as it took a huge financial crisis in 1991 to change its policies on FDI and its development of infrastructure. These changes led to India becoming more attractive for foreign investors, thus showing an increase in private overseas investment to aid and develop the large public work that is currently taking place.

India had always been a country with optimism and promise. The lack of effort by the government to induce outward-looking economic policies and promote international trade caused them to fall behind. This section will aim to highlight the state of the Indian economy before the 1991 balance of payments crisis, which forced India to re-evaluate its policy on FDI. It will also explain the policy changes that the Indian government made in order to make India one of the most attractive destinations for FDI.

#### **3.1. Indian Economy Pre 1991**

Before 1991, India's policy makers enforced significant regulatory controls over the Indian economy and steered it towards centralised economic planning (Wadhva, 2004). India developed its policies based on an inward-looking approach, where government involvement was the focal point of many investment projects in infrastructure development. The strategy of the government was that of import substitution, where in the 1970s and 1980s, they failed to implement the necessary structures to encourage a market-oriented economy.

Since the end of British rule in 1947, India developed and implemented its investment and infrastructure policy based on a series of 5-year plans. This helped the government to structure its policy on short-term goals, using macroeconomic indicators as a measure of how the country's economy was performing. This would include its openness to trade, the size of its fiscal deficit and the nature of the country's exchange rate regime. In addition to this, the current levels of infrastructure and natural resources were also taken into account in analysing the state of the economy (Basu, 2004).

### ***3.1.1. India's 5-Year Plans***

As mentioned above, India developed its investment and infrastructure policy on a series of 5-year plans, after gaining independence from British rule in 1947. The Indian economy was in a fragile state. The Indian planning commission were entrusted with the creation, formulation and development of the 5-year plans in order to bring stability and growth to a faltering economy in 1951. Each 5-year plan was given a significant budget in order to meet key objectives within the allocated 5 years in order to bring India a step closer in their aim in becoming a sustainable economy. India is currently into their 11<sup>th</sup> 5-year plan.

The 1<sup>st</sup> 5-year plan (1951-1955) was set out to improve the current standard of living for the habitants of India. This included the development of infrastructure in the form of roads and railway lines in both urban and rural landmarks. With a budget of \$23.6bn, India achieved its targets, increasing its GDP to 3.6% (Target was 2.1%), and also improved the quality in its roads and railways. Even though changes were evident regarding the 1<sup>st</sup> 5-year plan, it was just the “beginning of planned economic development which allowed for an increase in capital expenditure in the public sector rather than controlling and directing all private investment” (Rao, 1952: 3). This allowed for the public sector to integrate much more closely with the private sector and showed that further developments needed to be made in the subsequent 5-year plans.

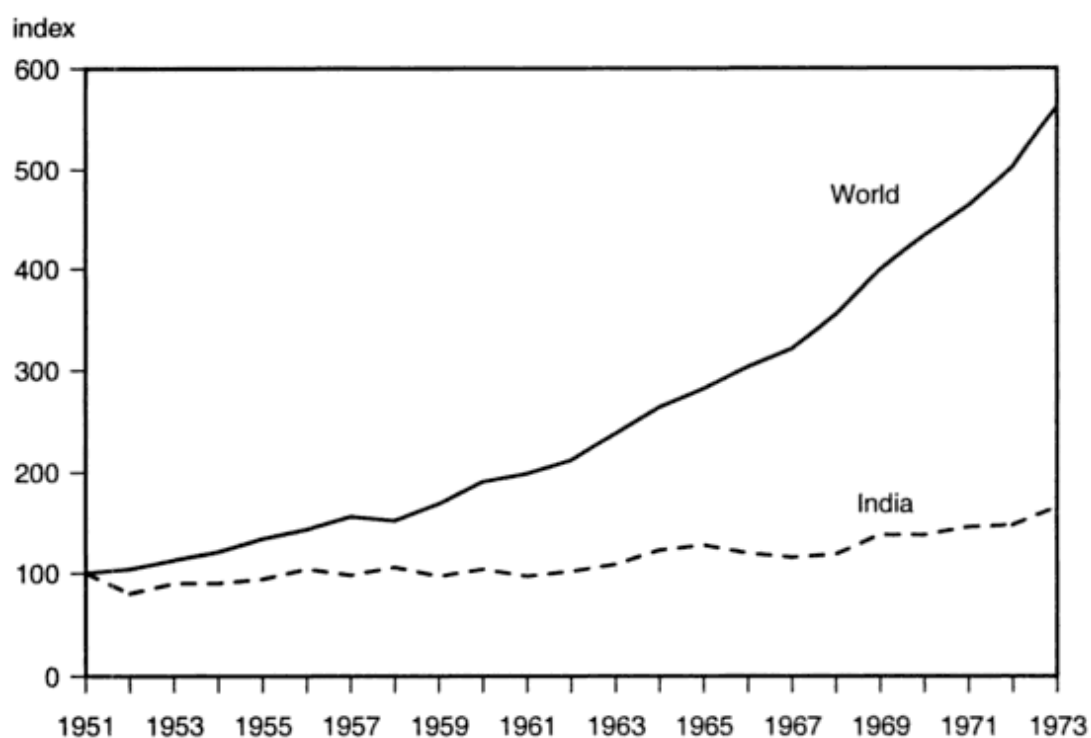
Each 5-year plan that followed comprised of various objectives that the Indian government were targeting. As mentioned before, the development of infrastructure was of the utmost importance and each “phase” included a specific area in which the government targeted improvement. This consisted of improved transport facilities, investment in dams and irrigation, development in the communication and technology sectors and an increased level of education at all stages.

However, India faced a period of economic instability where the continuation of the 5-year development plan was postponed between 1989 and 1991. This period brought radical changes to India's political and economic views on FDI. The following section will explain the thinking behind the changes and the consequences that followed.

### 3.2. 1991 Reforms

India was in a sense of disillusion towards the end of the 1980's. Since the introduction of its 5-year development plan, the main concern was to increase economic growth year on year in order to develop its infrastructure to closely match conditions of established economic powerhouses such as the U.S and UK. According to Srinivasan and Tendulkar (2002), "Bhagwati and Srinivasan (1975) had drawn attention to the fact that the state controls on economic activity and inward orientation had cost India dearly in slow growth". This was highlighted between 1950 and 1973 where its exports grew by only 2.7% annually. Figure 1 compares the export volume in India against the world between 1951 and 1973.

Figure 1: Comparison of export volume between India and the rest of the world



Source: Srinivasan and Tendulkar (2002)

There were numerous changes being made within the government in the 1980's, which created a great deal of political uncertainty. Confidence was low when it came to the government's ability to manage the economy and maintain stable economic policy. Foreign trade suffered dramatically due to strict bureaucratic discretionary controls and foreign exchange controls. It was the system of fixed exchanged rates in 1971 along with the oil price hikes of 1973 and 1979, which brought about numerous amendments in India's external

sector policies. According to Srinivasan and Tendulkar (2002), the hike in international oil prices allowed “the newly affluent oil-producing nations to provide ideal markets for India’s exports of agricultural products because of locational advantage”.

Towards the end of the 1980’s, foreign economies started to collapse. Those within Eastern Europe and the Soviet Union faced vast economical problems, and trade with India was reduced significantly. Along with this, the Gulf War in 1990 hit India hard. Oil prices had gone up significantly, which increased the country’s import payments and the ever-diminishing balance of payments added to India’s woes. The current account deficit had risen to a record 3.2% of GDP in 1990 (Srinivasan and Tendulkar, 2002) and inflation had peaked at 17% in 1991 (Bajpai, 2002: 2).

India came close to international default and faced an enormous balance of payments crisis as foreign exchange reserves fell to a disastrous \$1bn in June 1991. To explain the significance of the problem that India was facing, it was barely sufficient to cover two weeks worth of imports (Rajan and Sen, 2002: 2).

There was an enormous fear of being left in the shadow of China, who was being compared to India as a potential emerging economy. This fear led policymakers to evaluate its current situation and decided that radical changes needed to be made in infrastructure development to progress and compete with the rest of the world. It was realised that an increase in foreign trade was necessary in attracting more FDI to help the country out of a severe financial crisis, which was hindering the steady progress they believed they were making to raise the standard of living for the people of India.

The 1991 reforms provided India with a chance to integrate itself with the world economy and allowed for a huge shift away from an inefficient public sector and a move towards greater reliance on the private sector. It gave the government an incentive to undertake major microeconomic reforms and change its view on domestic investment and international trade. India recognised that infrastructure investment needed to be increased and therefore introduced the private sector, which had previously been restricted.

There are three main reasons as to why India was forced to change its economic policies and embrace liberalisation. The first reason was the damaging economic outlook it was facing at the time. Inflation was rising, the trade deficit was ever increasing and foreign debt was continually going deeper into the red. According to Sharma (1996: 109), India was “on the verge of defaulting on its foreign loan”, but was saved from crashing precariously by the IMF (Emde, 1999: 1). This problem was mainly put down to India’s inability to be efficient when it came to investing in infrastructure and the enormous divide between rural and urban India.

The second reason that forced India to change its economic stance towards the rest of the world was its tradition of a “centralised and inward-directed business policy” (Howell, 1996: 37). It was understood that India had to reintegrate itself with the world economy and link their economic policies to attract FDI to develop its infrastructure program. In addition to this, it was essential for India to join forces with the main driving factor behind globalisation, MNCs. This will be discussed in more detail later on.

The final reason that India struggled to establish themselves as economic powerhouses, was due to “the success of export promotion industrialisation along with the failure of import substitution” (Siddiqi, 1993: 191). Export promotion allowed economic development and was a policy that succeeded in Southeast Asia’s Newly Industrialised Countries (NICs). India were forced to follow the policy of the NICs as they came to a realisation that export promotion was better than import substitution. The fall of the Soviet Union, which had an enormous impact on India, as policies were often modelled on the USSR, was also a major factor in the change of policy towards export promotion.

As you can see, the economic problems that India faced in the early 1990s forced them to make drastic changes. Manmohan Singh, India’s finance minister in 1991 and now the current Prime Minister of India, believed that the time had come “to convert India from a regulated and control-bound, inward-looking economy into a market friendly, outward-looking one” (Emde, 1991: 2). India had changed its views on the importance of FDI, which were highlighted in these 1991 reforms, and believed that MNCs were advantageous in the development of its economy.

The following section will highlight the current state of the Indian economy, which will lead onto how India has embraced FDI.

### 3.3. A New Dawn: India Post 1991

The key word that seems to be used with India in its current climate is “liberalisation”. Previously, this term was used to describe India as a country that provided a development plan that included investment, import licensing, and price and distribution controls (Panagariya, 2008). However, the 1991 reforms abandoned this approach and moved towards replacing it with a market-based model, freeing itself from self-deprivation of FDI.

India’s foreign trade has increased substantially in the post-reform period (Dutt and Rao, 2000: 11). The government, International Monetary Fund (IMF) and World Bank promote these policies as the most effective and positive instrument of achieving a rapid and sustainable rate of growth (Bilgrami, 2002). According to Bajpai et al (2002), “the share of the merchandise trade in GDP has increased by more than 4% from 15.5% in 1990-91 to 19.8% in 1994-95”. Merchandise trade is described as the rate of exports and imports. This is clear proof that post-reform repercussions have had a positive effect on India’s trade and there has been a wider integration with the world’s economy.

The initial flow of FDI since the reforms has shown huge improvements. Table 1 shows the level of FDI between 1992 and 1996. This has also coincided with foreign investors making substantial returns on their investment in India. The high risk involved in investing in a country going through such change paid off enormously, allowing investors to gain significantly in such a short space of time.

**Table 1: Level of FDI inflow into India between 1991 and 1995**

<b>Year</b>	<b>FDI (\$million)</b>
1992-1993	315
1993-1994	344
1994-1995	620
1995-1996	1314

Source: Reserve Bank of India

Although FDI has led to promising signs of a “gentle giant” such as India recovering from a state of collapse to potentially becoming an economy of substantial size and power, there are still challenges that lie ahead.

The 1991 reforms resulted in the availability of financing through the purchasing of equity. This was not the case pre-1991, as the pricing of Initial Public Offerings (IPOs) was controlled by the Indian government. This changed dramatically, as companies were now allowed to produce their own IPO prices, using various valuation methods such as price-earnings ratios (Basu, 2004).

The following section will discuss the impact of FDI in India, as well as looking at the determinants that foreign investors look at before deciding to invest.

#### **4. Foreign Direct Investment in India**

As defined earlier, FDI is “cross-border expenditures to acquire or expand corporate control of productive assets” (Froot, 1993). It is now recognised as an important factor to sustain growth within a country’s economy. It has allowed various sectors to grow in order to facilitate demand and expansion. Over the past 20 years, the level of FDI has grown in both developed and emerging economies.

FDI is seen as “an integral part of an open and effective international economic system and a major catalyst to development” (OECD Report, 2002). However, different countries have different policies on how they would like to promote the inflow on FDI, and this is no different for India.

The Economic Survey 2008-09 stated, “FDI is considered to be the most attractive type of capital flow for emerging economies as it is expected to bring latest technology and enhance production capabilities of the economy”. Since the early 90’s, India has expanded its scope for FDI by progressively increasing the number of sectors that are eligible (Rao and Dhar, 2011: 4). As discussed in the previous chapter, the 1991 reforms in India led to numerous changes in economic policy, which were of huge benefit to a faltering country. This section will look at how India has embraced its new structure in encouraging FDI as a source of economic development and integrating itself with the world’s economy.

In addition to this, it will highlight why India has become such a popular attraction for foreign investors in the recent past and discuss the trends in various sectors. It will also highlight any negative impact FDI has had on India and what measures are being taken to make sure it remains a popular choice for investment.

However, in order to understand how FDI works, it is essential to look at determinants that a foreign investor would look at before investing.



#### **4.1. Determinants of FDI**

Firms evaluate their investment into foreign markets based on macroeconomic and other national level factors that determine differences in FDI inflow (Walsh and Yu, 2010: 4). According to Dunning (1993), firms have four key elements that would motivate them to invest in foreign markets: access to resources, access to markets, efficiency gains and acquisition of strategic assets. However, these components may be hindered due to policy shifts by the local government.

One determinant of FDI is the market size and growth potential in the host country. An increase in market size shows that there is enormous demand for products and services. In addition to this, economies of scale are present in the host country, therefore providing lower transaction costs, which is an attractive proposition for FDI. An increase in FDI will affect the host country's economic growth, however this can also in turn affect the direction and volume of FDI (Tsai, 1994: 139).

The 'openness' of the host country is an important determinant of FDI as it is easier to import raw materials and capital goods, which are necessary for investment (Tatoglu, 2002: 3). In order for FDI to grow, international trade flows are of vital importance as MNCs are expected to import and export large quantities from the host country in which they have invested. This means that the host country is required to remove barriers to export or import. According to Jordaan (2004), the extent to which openness is a relevant factor depends on the type of investment that is brought to a host country. Where MNCs are market seeking, trade restrictions can have a positive impact on FDI. The argument is that MNCs look to serve local markets with the view of setting up subsidiaries in the host country if it is difficult to import their own products into the country (Demirhan and Masca, 2008: 359). In general, a more open economy, that embraces foreign trade, will encourage FDI.

Exchange rates are a variable that could potentially influence the decision of MNCs to invest in a foreign market. A weak exchange rate in the host country would allow firms to capitalise on low prices in order to purchase raw materials, land space, and facilitate production. Froot and Stein (1991) believe that a weaker host country currency will increase inward FDI within an imperfect capital market model as depreciation makes the host country's assets less

expensive relative to assets on the home country. It would affect a firm's cash flow, expected profitability and the attractiveness of domestic assets to foreign investors (Tatoglu, 2002: 4). Therefore, the value of the exchange rate is seen as a potential barrier to entry into a foreign market. If this were not attractive enough for MNCs looking to invest abroad, then they would have to look for alternative routes of investment, which could be in domestic markets.

The emphasis on whether political stability as a determinant of FDI is still largely in the balance. There is no concrete evidence to suggest that the relationship between political instability and FDI is risky for MNCs when investing in foreign markets. Jaspersen et al (2000) believes that there is no relationship between FDI flows and political risk while Schneider and Frey (1985) find a positive relationship between the two indicators (Demirhan and Masca, 2008). If the foreign firm feels as though they will be able to invest and operate in a profitable and efficient manner without the risk of political uncertainty, it will continue to do so.

Labour costs and productivity will also have an impact on whether MNCs invest in a foreign country. Higher wages in the host country tend to discourage FDI, as one of the advantages of MNCs investing in foreign markets, especially emerging economies, is the availability of cheap labour. However, when cost of labour is not of the utmost importance, the productivity and skills of the labour force are expected to have an impact on decisions about whether FDI is a viable solution (Demirhan & Masca, 2008).

Infrastructure is another key investment area that is important in determining the impact of FDI. Jordaan (2004) states that FDI inflows will increase within a country if infrastructure is preserved and maintained continuously. The government of the host country plays a valuable part in encouraging FDI into the development of infrastructure. A foreign investor or MNC will always have a strong preference towards high quality infrastructure, which is able to provide communication links, direct transportation and substantial distribution channels in order to profit from their investment.

Empirical studies have been conducted to explain the determinants of FDI within a host country. The aforementioned variables that affect the decision of an MNC potentially investing in a foreign country are all viable, however recent studies have tested these

particular determinants. Tatoglu (2002) states that the “size of the domestic market, the openness of an economy to foreign trade, infrastructure of the host country, attractiveness of the domestic market, exchange rate instability and economic instability” influence FDI. The findings of this study suggest that a positive relationship occurs between FDI and the size of the domestic market, openness to trade, infrastructure and attractiveness of the foreign market. However, there seems to be a negative effect between FDI and exchange rate instability and economic instability.

Using the determinants outlined above, the following section will discover why India is such a prospective attraction for foreign investors in its current climate.

#### **4.2. Why is India an Attractive Destination for FDI?**

FDI has grown enormously throughout the world, none more so than in emerging economies. It has allowed a country to develop its infrastructure in order to provide a greater standard of living. It is the role of multinational enterprises that has coincided with the surge in FDI, which implies a rising share of foreign ownership in those economies has been its main recipients (Graham and Krugman, 1993). The scope of FDI had changed in the mid-1980s, as MNCs were not just securing their future income in particular country's, but were trying to establish control within their chosen sector. But why has India become such an attractive proposition for foreign investors?

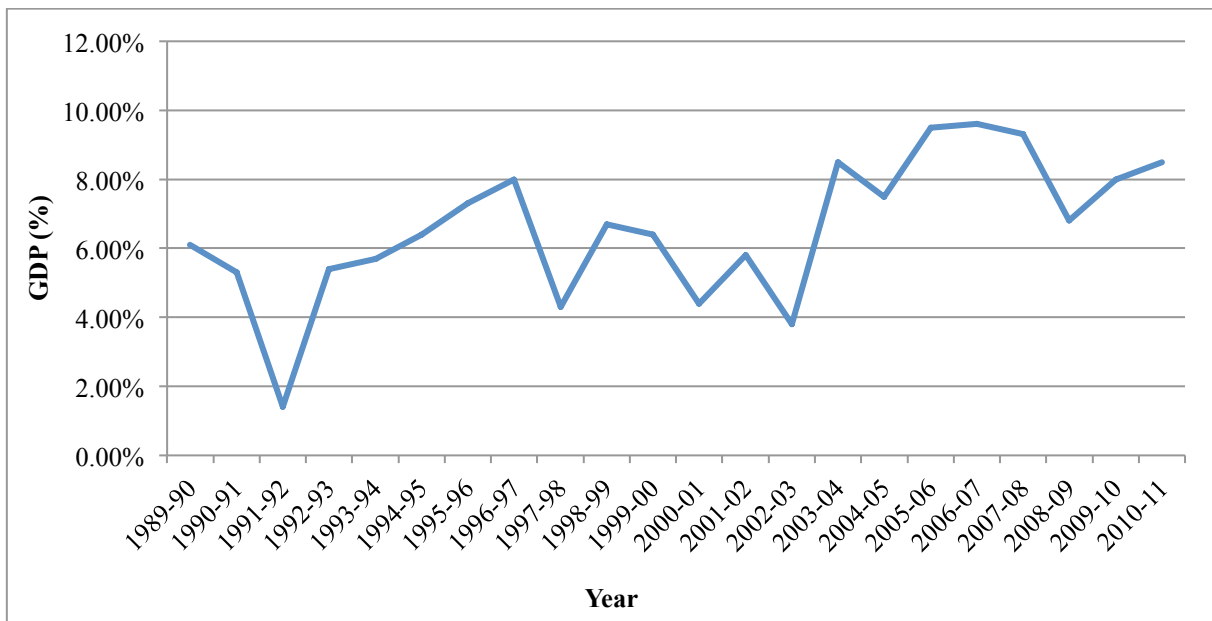
India has cemented itself as one of the largest economies in the world. In addition to this, India is regarded as the world's second fastest growing economy and is therefore an attractive market for FDI. The stock of FDI in India has increased dramatically from less than \$2 billion in 1991, when the economic reforms took place, to more than \$45 billion in 2005 (Nunnenkam and Stracke, 2007: 1).

Kumar (2005) believes that there are two key factors that have increased the inflow of FDI into India. The first is the structural factors such as the quality of infrastructure, market size and geographical and cultural concurrence with major sources of capital. The second are policy factors such as tax rates, investment incentives and performance requirements (Manikandan, 2008).

### 4.2.1. Economic Growth

One of the main reasons that has made India an attractive prospect for investors is the rise in economic growth. As shown in figure 2, GDP growth has increased since economic liberalisation in 1991.

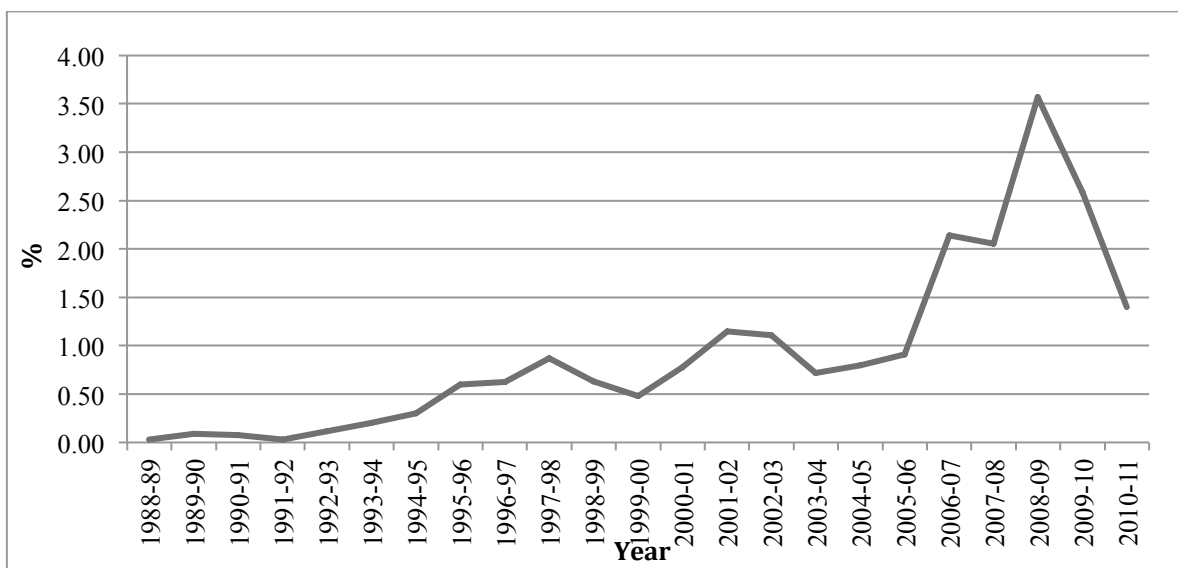
**Figure 2: Economic growth in India between 1989 and 2011**



Source: The World Bank

This is further broken down in figure 3, which shows FDI in India as a percentage of GDP.

**Figure 3: FDI in India as a % of GDP between 1988 and 2011**



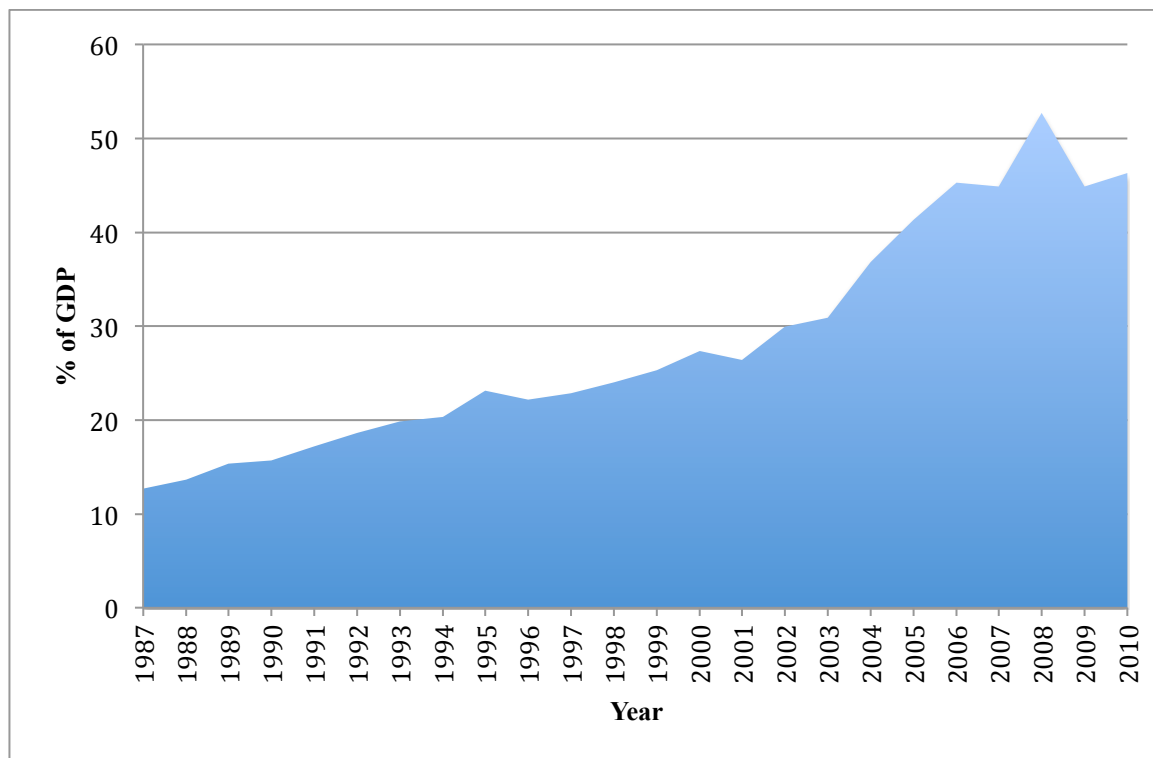
Source: The World Bank

As you can see, FDI has had a major impact of the country’s economy, especially since 1991. However, due to the global economic crisis in 2008, the level of FDI that has gone into India has slightly decreased, as foreign investors have taken a much more cautious approach by not investing as much in an emerging economy that poses such a high risk.

**4.2.2. Openness to Trade**

One of the determinants of FDI that was mentioned earlier is how open a country is when embracing FDI. Openness to trade is defined as the total of imports and exports as a percentage of GDP (Singhania and Gupta, 2011). After the 1991 reforms, it has become much easier for MNCs to enter the Indian market and involve itself in international trade. India has changed its policies dramatically to incorporate free trade. According to The World Bank, since the trade reforms of 1991, India’s trade to GDP ratio has increased from 13% to 31% between 1990 and 2010. As you can see from figure 4, India’s trade as a % of GDP has increased dramatically since the trade reforms took place in 1991.

**Figure 4: India's trade as a % of GDP between 1987 and 2010**



Source: The World Bank

MNCs do not only look at the growth potential of India when deciding on whether to invest in India. One of the most attractive propositions in alluring FDI into India is the highly skilled nature of its work force for relatively low wages.

#### **4.2.3. Labour**

The availability of educated and skilled labour at a low cost is a factor as to why many MNCs decide to enter the Indian market to conduct their business. With many more young people having the resources to be able to go to university and further their education, India has provided an increasingly well-educated and cost competitive labour force, which allows them to attract an increasing proportion of global FDI. One of the areas that has helped the Indian economy over the past 10 years is the manufacturing sector, which has grown at an average of 9% between 2004 and 2008 (Sebastian, 2010). MNCs have increased its presence in the Indian manufacturing sector, where India has developed unrivalled skills in product, process and capital engineering due to its ever-expanding education system. In addition, India's cheap and skilled labour force is attracting companies from all industries, making India a force within the manufacturing sectors.

#### **4.2.4. Government Incentives**

The Indian government has reduced its control and regulation within the financial services sector since 1991. Incentives have been introduced to encourage FDI into the country by loosening the restrictions placed on capital inflows and allowing foreign firms based in India to access further capital through bank loans and equity markets. Bloodgood (2007) states that, "foreign firms doing substantial business in India can raise capital in Indian capital markets through the issuance of Indian Depository Receipts". In addition to this, there are a number of foreign firms now listed on the National Stock Exchange and the Bombay Stock Exchange.

Because of the incentives that India offers in attracting FDI, investment areas are categorised into Special Economic Zones (SEZs). SEZs allow foreign firms to benefit from incentives allocated to certain areas within India. There are three specific incentives that are offered to MNCs so that they are able to operate their business efficiently from India. The first is tax, tariff and financial incentives. This includes a reduction in income tax for the first 10 years

that they are in operation in India. This is broken down further so that foreign firms will pay no income tax for the first 5 years. In the next 2 years, firms can take advantage of a reduction of 50% and the final 3 years allows MNCs to “debit up to 50% of its profits from the previous year to a Special Economic Zone re-investment allowance reserve account” (Bloodgood, 2007).

The second incentive that potential foreign investors can take advantage of is the avoidance of bureaucratic and administrative barriers where limits on foreign equity ownership that apply to certain sectors in India are eliminated in SEZs (Bloodgood, 2007). This allows for MNCs to go through shorter procedures to have their investments approved by the Reserve Bank of India. An investment can therefore be approved within a period of two weeks. By avoiding the administrative barriers to bring FDI into India, firms that operate within the SEZs do not need a license to import their goods.

The final incentive that firms have by investing in India within the SEZs is the availability of reliable infrastructure. SEZs allow foreign investors to take advantage of developed telecommunication lines, uninterrupted water and power supplies, as well as access to trade through improved transportation facilities. In addition to this, by having MNCs set up in SEZs, they are within distance of ports and airports to allow easier international trade. This will be covered in much more detail in the next chapter.

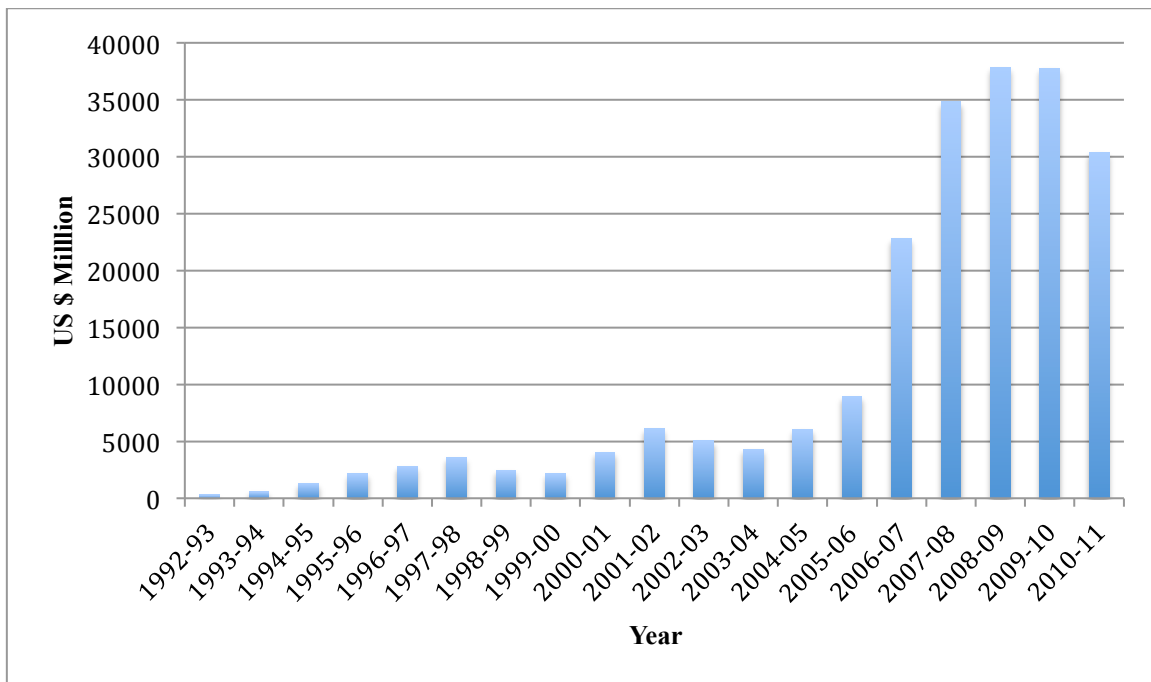
The Government of India also provide incentives for those who invest outside the SEZs. They are designed to attract FDI to specific industries, promote the development of poverty stricken areas and to encourage exports (Bloodgood, 2007). The lack of infrastructure in these areas can cause problems for potential investors. Because of this, the Indian government introduced reduced restriction on foreign investors in infrastructure to aid development in impoverished towns and cities. In addition to incentives in infrastructure, the Government of India has reduced tax on R&D.

As you can see, there are many reasons highlighting why India has become an attractive destination for foreign investors. The next section will look at FDI trends in India and where inflows are being directed to by sectors.

### 4.3. FDI Trends in India

Since 1991, India has come a long way in establishing itself within the world’s economy. FDI has increased significantly, with interest to invest in India becoming an attractive proposition providing significant potential gains. The recent flow of FDI into India has allowed them to maintain their growth rate and become a central hub for investment proposals. Figure 5 shows the level of FDI inflow into India since the early 1990s.

Figure 5: FDI inflows in India between 1991 and 2011



Source: Reserve Bank of India

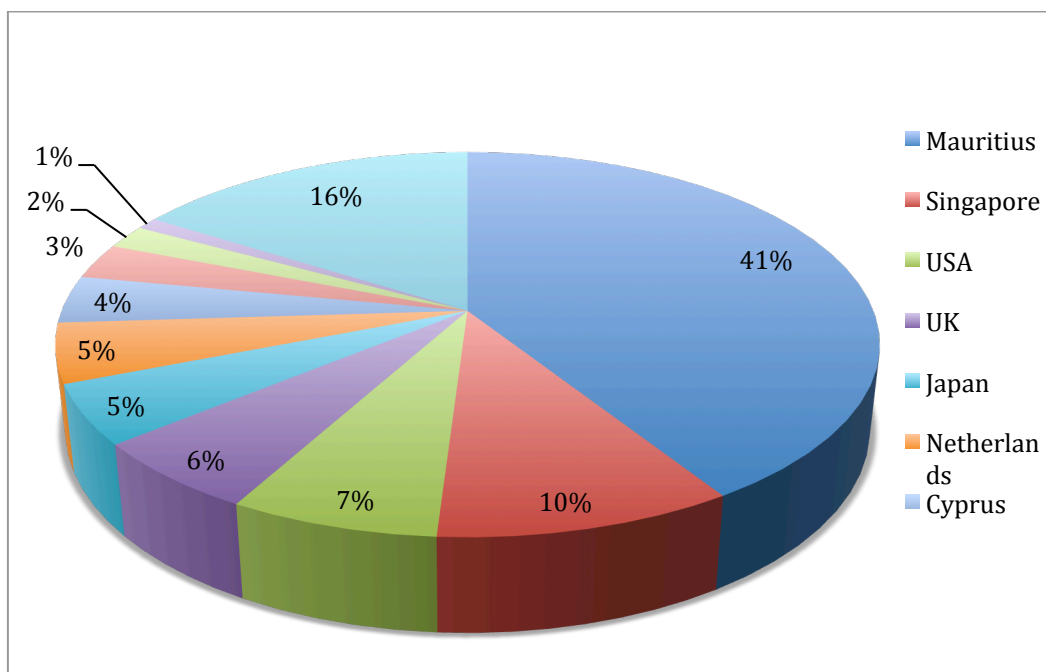
As you can see, since the 1991 reforms came into effect, the inflow of FDI has increased. Between 1992 and 2005, FDI came in small increments as India was still going through significant changes and was still considered a very volatile and risky investment environment.

In 2008, the world was hit with a financial crisis that affected many countries. Global FDI was down by more than 20%, and MNCs found it difficult to raise enough capital to invest, not only on foreign shores, but also in their own domestic lands. However, this problem was a major factor for developed economies such as the U.S and countries within the E.U, as India had a rise in inward FDI. This can only be seen as a continuation of confidence in the growth prospects of India.



FDI inflows in India are attributed from many countries around the world. Government incentives to attract FDI are increasing continuously, making India a central hub for investment. There are some MNCs from certain countries that invest more than others. This may be down to a number of reasons, such as the nature of the company, the resources' that are available to them, and barriers to entry. Many country's firms simply increase the FDI inflow into India by acquiring Indian companies and continuing their operations in the host country. Figure 6 shows the top 5 countries that bring FDI into India as of October 2011.

**Figure 6: FDI inflow into India by country**



Source: Government of India, Department of Industrial Policy and Promotion

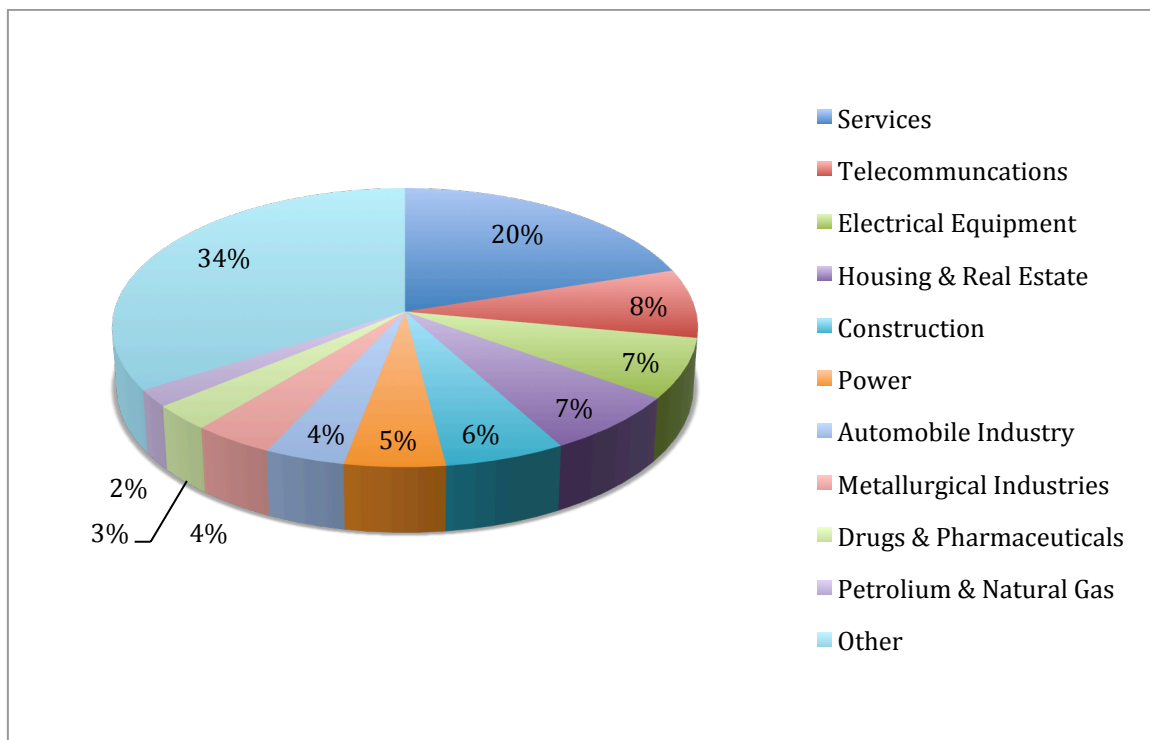
As you can see, Mauritius provides the highest level of investment to India. This is due to government tax incentives' that is given to all FDI that comes from Mauritius to India. The industries that are attracting FDI from Mauritius to India include electrical equipment, telecommunications and fuels.

Singapore is seen as the second largest contributor of FDI into India. In the financial year 2010/2011, MNCs originating from Singapore invested \$15.2bn in cumulative inflows. According to the Indian government, the top sectors attracting FDI from Singapore are fuel, transportation industries and information technology. However, Singapore has not always

been the second biggest investors in India. The U.S. have dropped down to third in terms of cumulative investment inflow into India. Between April 2000 and October 2011, the U.S. contributed \$10bn in investment into India, which has given a great boost to the Indian economy. The top sectors that have been attracting FDI from the U.S to India have been fuel, telecommunications and food processing industries. FDI from the U.S has led to technological advances and increased employment in India.

MNCs invest in India in order to gain a foothold in the country’s markets and to be able to raise significant profits from what they believe is a high-risk investment. However, these investments are not directed towards one particular area. Various sectors benefit from FDI, which allow it to grow and help gain momentum in the host country’s economy. The sector that has received the largest share of the total FDI inflow between January 2000 and July 2011 in India has been the services sector, receiving \$30.5bn of the cumulative total of investment. This was followed by the telecommunications and electrical equipment’s sector. The full scale of sectors that have benefitted from FDI is shown in figure 7.

**Figure 7: Top sectors that attract FDI inflow in India**



Source: Government of India, Department of Industrial Policy and Promotion

As mentioned before, the services sector has gained a majority of FDI compared to other sectors in India. This is due to the growth of sub sectors such as I.T, financial services and insurance (Bohra et al, 2011). There have been a number of mergers & acquisitions within the insurance and banking sectors that have also attributed to the growth in FDI within the services sector.

According to Department of Industrial Policy & Promotion in India, the manufacturing sector has also played a major role in the growth of the Indian economy. The sector has benefitted due to the presence of MNCs in India as well as the scaling up of operations by domestic companies. The attraction towards the manufacturing sector by MNCs is due to the rise in cheap and skilled labour and its history within the sector. The main sub sectors within manufacturing that have benefitted from FDI are electrical equipment, transportation, fuels and drugs and pharmaceuticals.

It is the role of MNCs that have contributed to an increase in FDI in India. MNCs have developed an interest in investing from many countries and through various sectors. The next section will look at the role of MNCs in India through FDI.

#### **4.4. MNCs Investing in India**

Firms are facing constant changes in order to deal with competition, in both their own domestic markets and international markets. For a firm to fulfil its growth potential and truly become a multinational enterprise, it needs to expand its horizons and exploit foreign markets that have yet to be explored.

Multinational Corporation (MNC) or Multinational Enterprise is defined as “an enterprise that engages in FDI and owns or, in some way, controls value-added activities in more than one country” (Dunning & Lundan, 2008). Previous studies have showed that MNCs have a specific role in bringing their know-how and expertise that they have built up in their own domestic market to a foreign country by taking advantage of lower costs (Porter, 1986). India has seen an increase in the number of MNCs that have continued their operations in the country, which has created a great deal of employment for the local people. In addition to employment creation, the level of FDI has also increased due to MNCs being involved within

the Indian market, which has in turn allowed for economic growth in India. In its current climate, India is home to many of the world's biggest MNCs.

As mentioned before, the trade reforms that began in 1991 have helped MNCs enter the Indian market and prosper from the rewarding gains. MNCs have shown to have a positive impact on the Indian economy and this will be further explored in the next section.

#### ***4.4.1. Benefits of MNCs in India***

MNCs have benefitted from three key features that have enabled them to enter the Indian market: “opening the economy to global markets, reducing import tariffs and state intervention in domestic policy decisions, and stabilising the economy through structural reforms” (Emde, 1999).

In short, India had made their trade policies accessible to the rest of the world. MNCs were allowed to be a part of public sector projects that were once only available to local firms. According to Sharma (1996), “all sectors previously reserved for public enterprise are now open to private investment”.

MNCs have become a huge part of how a country grows economically and socially in order to compete with the rest of the world. The perceptions towards MNCs have changed dramatically over the course of time. The importance of having FDI has allowed for an economy to develop and be sustainable in order to provide world-class infrastructure, stability and choice. This is no different for India.

But the question remains: how has India benefitted from MNCs entering India?

##### ***4.4.1.1. Transfer of Technology and Technological Spillover***

A positive way in which MNCs have benefitted within Indian culture is through the transfer of technology and technological spillovers. According to Murty (2003), the “technology frontier is now becoming increasingly internationalised by continuously shifting outward as a result of the efforts of MNEs aimed at innovation”. Development of technology has increased

through extensive R&D in India with the use of local resources instead of imports. It has also improved the productivity of local firms through spillovers, which has enabled them to improve its production and management techniques (Athreye & Kapur, 1999). India has developed its ability to absorb new technology that has been brought over by MNCs due to the level of education that it receives as well as the skills of its labour force.

With technology advancing in numerous sectors such as manufacturing and pharmaceuticals, MNCs have allowed India to gain momentum with the rest of the developed world. According to Bell and Marin (2006), “the usual perspective on technology spillovers from FDI sees the MNCs subsidiaries as a passive actor. It presumes that the technological superiority that spreads from subsidiaries to other firms in the host economy is initially created outside it by the MNC’s parent companies and is delivered to subsidiaries via international technology transfer” (Manikandan, 2006). This is the case with India. Most MNCs that have set up in India have transferred their existing and developing technologies from their operations within their home country, allowing the domestic firms to take note and help improve their own operations through new and innovative ideas.

Since the 1991 reforms, many more MNCs have entered the Indian market with the goal of transferring their know-how and specific management methods to improve operations, all the more developing these techniques and innovations in their own country. As mentioned before, the Indian pharmaceutical sector has benefitted enormously from technological spillover. With it being such an R&D focused industry, MNCs have been conducting R&D in India for more than three decades (Feinberg & Majumdar, 2001). Using extensive resources and significant investment, MNCs in the pharmaceutical industry have propelled India’s source of innovation, providing greater technology and assisting the domestic market.

However, with technological spillovers being advantageous to India and its domestic companies, there are perceptions over the security of intellectual property (IP) rights within the country. A study by Lee and Mansfield (1996) showed that MNCs originating from the U.S. that invested in emerging markets such as India depended enormously on the security of intellectual property rights in the host country. This study was tested further to show that India was perceived to have very limited IP rights, with 44% of U.S. MNCs believing that IP protection in India was too weak to “permit them to transfer their newest or most effective

technology to Indian subsidiaries or joint-venture partners, or to licence technology to Indian firms” (Athreye & Kapur, 1999).

#### **4.4.1.2. Market Competition**

Studies have shown that there is generally a positive correlation between foreign investment through MNCs and the level of competition within a domestic market (Athreye & Kapur, 1999). Since India changed its policy towards FDI, the government has encouraged competition from domestic firms as well as MNCs. India has benefitted significantly from MNCs entering its domestic markets as competition has increased, which has resulted in inefficient domestic firms to adopt a more efficient structure. By encouraging MNCs to set up their operations in India, it has assisted domestic firms in maximising their potential. This has in turn lead to an increase in competition and allowed for a significant rise in production. A Study by Aghion et al. (2003), showed that in India, “incumbent firms have responded to the entry threat posed by liberalisation by innovating”.

The impact on competition in India is highlighted within the automobile industry. The automobile sector was highly regulated by the Indian government until 1993. Foreign firms faced high barriers to entry in the market and were faced with high tariffs against any imports into India. The Indian policymakers believed that allowing MNCs to enter the automobile industry would have a detrimental effect towards domestic firms, which would cause monopolistic consequences. Research showed that domestic firms, Hindustan Motors and PAL, had substantial market coverage within the industry (Poddar, 2004). The government wanted to protect these companies from foreign competition, and up until 1983, only allowed Suzuki to enter the market in a joint venture with Maruti, who were stated owned (Poddar, 2004).

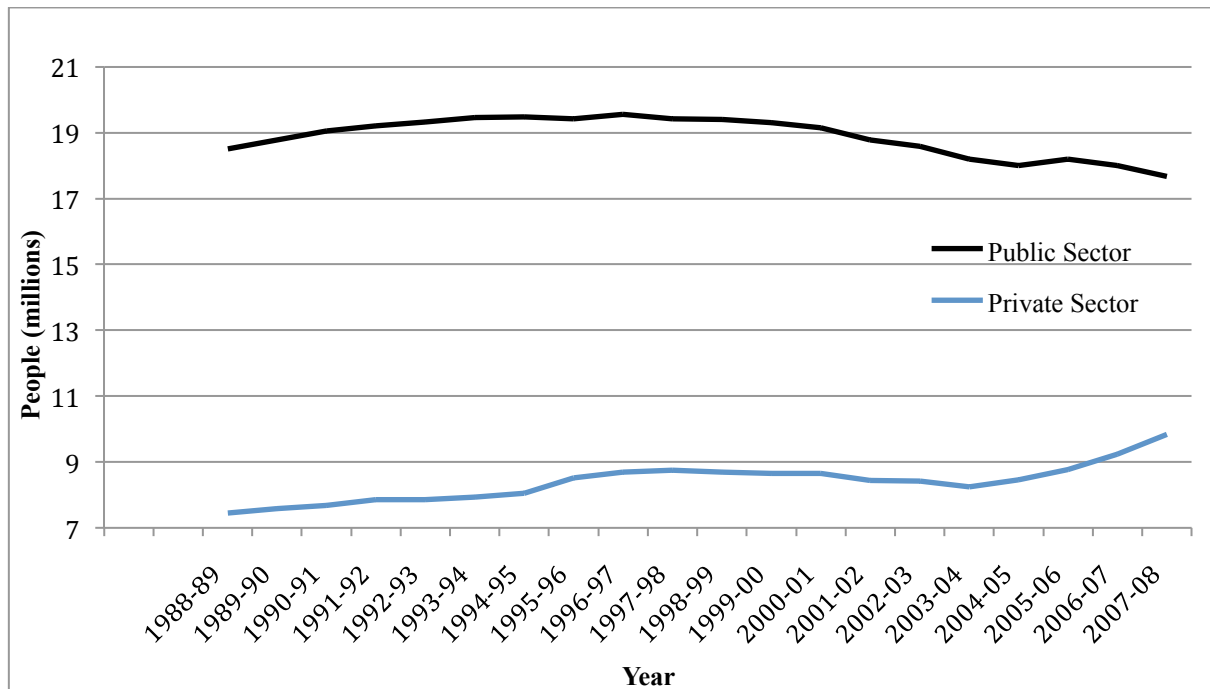
However, the positive impact that Suzuki have had on the automobile industry in raising competition through innovation, has allowed for many other car makers to enter the Indian market. Due to this change, the industry attracted multiple MNCs where \$1.6bn was invested. This increased competition and “forced incumbents to reform or exit the market” (Poddar, 2004). By opening the market up to MNCs, it showed that domestic firms were increasing their exports, innovating more and improving their performance within the market.

#### 4.4.1.3. Employment

S.P. Gupta, a member of the Indian planning commission, stated in 1999, “Under global competition, market will import and imbibe best global technologies which are quite often labour displacing (as they are mostly the outcome of the R&D activities of rich labour shortage economies). Protecting employment in a labour surplus economy and at the same time to remain competitive with the rest of the world is indeed the greatest challenge” (Singh & Sharma, 2003).

This is the true picture that faces India’s employment. Many studies have shown that overall employment levels have dropped since liberalisation in India. Since 1991, India has experienced a decline in employment within the public sector. However, with MNCs entering the Indian market, they have created substantial employment within the private sector. This is shown in figure 8.

**Figure 8: Public and private sector employment in India between 1988 and 2008**



Source: Government of India, Ministry of Labour & Employment

One of the main features of MNCs having a presence in India is through outsourcing. Many MNCs in recent years has created employment through re-structuring in their home country and moving certain divisions to India. Outsourcing has become a fundamental part of a MNCs

strategy in developing its business in a foreign market. In 2004, outsourcing in India grew by over 25%, creating a number of jobs in the process (Brims, 2004).

MNCs outsource its resources to India due to the quality of labour that is available at a low cost. An example of this is the U.S based Delta Airlines. They outsourced 1,000 call centre jobs to India in 2003 due to the potential savings it could make in the long term (Brims, 2004). However, the criticism aimed at outsourcing by MNCs is that although they are creating jobs for the local people, the low wages at which they work for can be seen as exploitation.

As you can see, MNCs have had a positive effect on India and its economy. It has provided extra resources, technological advances and innovation to various industries, which has benefited them, as well as the Indian economy. Liberalisation has promoted FDI into India more so than ever, with government policy changes and a more outward looking view. This has impacted various sectors such as pharmaceuticals, telecommunication and real estate. However, in order to develop these sectors, India is extremely reliant on FDI in infrastructure development to promote international trade in its most efficient capacity. This will be discussed in the subsequent chapter.



## 5. Infrastructure Development

In the early 1980's, Indian economist Dr. V.K.R.V Rao said that "the link between infrastructure and economic development is not a once and for all affair. It is a continuous process; and progress in development has to be preceded, accompanied and followed by progress in infrastructure, if we are to fulfil our declared objective of generating a self-acceleration process of economic development" (PWC Report, 2008).

Infrastructure requirements are increasing more and more within developing countries due to the rise in economic growth. In order to sustain this growth, continuous infrastructure development is crucial. It is seen as a significant driver in economic development, which allows for increased productivity and provides a better quality of life (Mohan, 2004). Countries throughout the world have realised that introducing the private sector into the development of infrastructure is a necessity due to the scale and financing that cannot be achieved by the public sector (Ahluwalia, 1997). When talking about investment from the private sector, this includes both FDI and local private capital. The rise in private sector investment into infrastructure grew enormously in the 1990's in various sectors including telecommunications and transport. This occurred especially within developing countries such as India, where the government accepted certain provisions in order to facilitate the inflow of private investment. Out of the top 25 FDI inflows in infrastructure sectors through private sector investment via domestic firms between January 2000 and December 2009, Idea Cellur Ltd, a telecommunications company, is top (Appendix A).

The development of infrastructure can come in various different forms depending on the sector it's being related to. For example, a sector where investment has been targeted in India is transportation. This can include the development of railway lines, public roads and bridges in order to provide sufficient access whether it is for trade or social use. The level of infrastructure can be further broken down into physical and social infrastructure. Physical infrastructure includes roads, power, ports and telecommunications, whereas social infrastructure includes education and health (Kumar, 2005). According to Ghosh et al (1997), "investments in physical infrastructure are typically characterised by lumpiness, long gestation periods, associated high risk, and relatively low profits during the initial phases of operation".

This chapter will look more towards the Physical infrastructure where FDI has increased significantly through the Indian government's 5-year plans and private sector participation.

For a number of years, India has underinvested in its infrastructure network due government funding issues. India, over the past 20 years, has opened itself up to FDI in order to help develop its infrastructure. One of the main schemes that the Indian government has tried to promote is Public-Private Partnerships (PPPs). There are relatively few restrictions that have been placed on FDI for infrastructure projects, however in order to enter the Indian market, foreign investors have to be able to understand specific features such as tax laws and regulations that are involved in potential investments.

This chapter will focus on how India's infrastructure development program has evolved since the policy reforms in 1991. It will discuss how the government has encouraged FDI in order to develop India's infrastructure projects in various sectors and outline in detail some of the projects that have been introduced. It will then demonstrate how PPPs have increased private sector investment and the challenges that foreign investors face when deciding to invest in Indian infrastructure development. Finally, it will look at the projections for the 12<sup>th</sup> 5-year plan, and areas in which the Indian government has highlighted for significant improvement.

## **5.1. Current State of Infrastructure in India**

### ***5.1.1. 11<sup>th</sup> 5-Year Plan***

The Government of India believes that the only thing standing in between them being a nation that is emerging and one that is already developed is the level of infrastructure that is put in place. India, as a nation, has developed where, "increasing urbanisation and income in urban areas, on account of greater service-sector incomes, have raised the demand for larger and better quality infrastructure" (Garg, 2007). The population is continuously growing in urban India. As of 1<sup>st</sup> March 2007, the population of India was recorded as 1.027 billion, where 285 million were living in urban habitats (Garg, 2007). Even though the figures are clear, the Indian government has not dealt with increasing need of basic infrastructure that is pivotal in sustaining economic growth.

India is currently coming towards the end of its 11<sup>th</sup> 5-year plan, which began in 2007. The Planning Commission within the Indian government, who are responsible for detailing their projections and objectives towards infrastructure development during each 5-year plan, recognised that the lack of sustainable infrastructure was a major problem in achieving their targeted growth rate of 10%. Towards the end of its 10<sup>th</sup> 5-year plan, investment in infrastructure was stated as being 5% of GDP. The government wanted this to increase to 9% by the end of the 11<sup>th</sup> 5-year plan, where the projected total investment that they believed was needed to be raised in order to fund infrastructure development, was a total of \$514bn. Through FDI, the government believe that they can raise up to \$150bn in private investment in the 5-year period ending in 2012.

In order to sustain the aforementioned growth rate during the period of the 11<sup>th</sup> 5-year plan (2007-2012), the government, in conjunction with the private sector, through FDI, believed that there were 10 major physical infrastructure sectors that were essential in order to reach their intended targets. These are outlined, along with investment amount, in table 2.

**Table 2: Total projected infrastructure investment per sector**

<b>Sectors</b>	<b>Investment Amount (\$billion)</b>	<b>Sector Share (%)</b>
Power / Electricity	166.63	32.42
Roads	78.54	15.28
Telecommunications	64.61	12.57
Railways	65.45	12.73
Irrigation	63.33	12.32
Water Supply and Sanitation	35.93	6.99
Ports	22.00	4.28
Airports	7.74	1.51
Storage	5.59	1.09
Gas	4.21	0.82
<b>Total</b>	<b>514.04</b>	<b>100</b>

Source: Government of India, Planning Commission

However anyone visualises it, quality and reliable infrastructure is important and can raise competitiveness in both domestic and international markets. The Indian governments 5-year plans have outlined the need for public investment, as well as FDI, in a number of different sectors, and this is set to continue until international standards have been met. We will now take a closer look at how the development of infrastructure in sectors that has benefitted from government and private investment.

#### ***5.1.1.1. Power and Electricity***

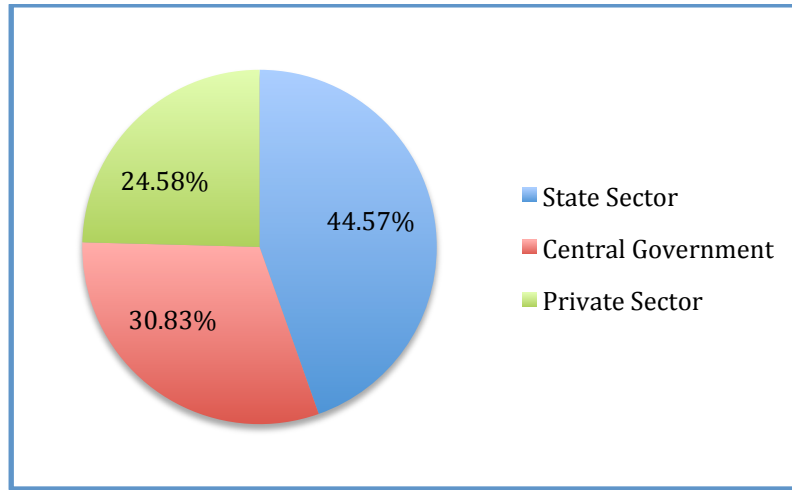
India currently has the fifth largest electricity grid and the third largest transmission and distribution network in the world. As shown in the table above, an estimated \$166.63bn will have been invested in power and electricity infrastructure during the 11<sup>th</sup> 5-year plan, which will be split between public and private sector investment.

India's power sector is suffering significantly due to inefficiencies in generation, transmission and distribution. The power sector was one of the first infrastructure sectors to be opened up to FDI. In 1992, the Indian government introduced new policies in power generation, which enabled an increase in FDI from the private sector (Ahluwalia, 1997). Its thinking behind this strategy was to enable foreign investors to partake in power generation that allowed independent power producers to sell to the State Electricity Board (SEB) (Mohan, 2004). However, this strategy encountered numerous problems, which included complexities in tariffs and risk mitigation.

After policy changes were introduced to correct the inefficiencies within the power sector, India looked to the U.S. to find energy investors. This allowed for Enron Corporation, an energy, commodities and services company based in Texas, to invest in the construction of a power plant. They combined with a local Indian firm, the Dabhol Power Company, to help manage the plant once construction was completed. The total investment in the project, where construction spanned over 9 years, was \$2.9bn. Despite the commitment and investment, the project became a failure due to the collapse of Enron. However, this significant move by Enron, allowed for other foreign investors such as General Electric and Bechtel to take advantage of potential gains within the Indian power market.

Despite the efforts to increase investment within the power sector, it has been shown that 50% of rural households have no access to electric power. This is due to a lack of investment in power stations in the past, which has subsequently changed as power plants are increasingly privatised. Figure 9 shows the distribution of power in India between the private sector (foreign investors included), the state and the government.

**Figure 9: Distribution of power in India as of 30th January 2012**



Source: Government of India, Ministry of Power

As you can see from table 2, the investment highlighted for the power sector is set at \$166.63bn. This is due to the number of projects that have been created by the government and power sector to attract FDI.

#### **5.1.1.2. Roads**

India's roads experience high levels of congestion every year due to the size of the country's population. The Indian government introduced the National Highway Development program in 1998 to develop road infrastructure between a number of major cities in India (Mohan, 2004). The estimated cost of the project totalled up to \$14bn, with \$1bn being invested by the private sector through FDI. However, this has been further revised, and the planned investment into the project will now soar to \$55bn up until the middle of this decade. The development was split into two sectors; the Golden Quadrilateral - which would connect the four major metropolitan cities of New Delhi, Mumbai, Chennai and Kolkata – and the North-South and East-West – which would connect the northern most point of the country to the

southernmost and the east to the west. This would cover a total length of 7,300km (Mohan, 2004).

According to a report published by Deutsche Bank in 2007, only 6% of the roads in India are considered to be developed, with 2% attributed to highways and 4% to state highways. The Indian government are relying on FDI to help them achieve their goal in the development of its roads and highways. Currently, the World Bank, the Asian Development Bank and the Japanese Bank for International Cooperation have invested in the project.

The government has constructed the National Highway Development Program in phases in order to maintain the progress they are trying to achieve. It is currently in its seventh phase, which is to increase the number of lanes in order to develop the roads linking the country's 12 most important ports with the national highway network. This is an important phase, as it will determine and help to encourage international trade from MNCs through FDI.

#### ***5.1.1.3. Telecommunications***

There is no other sector within India's infrastructure development plan that has grown as much as the telecommunications sector. According to Mohan (2004), "the number of telephone lines grew by 25 to 30% each year throughout the 1990s, starting with only 5 million in 1991" since policy change on FDI came into effect. The Department of Telecommunications within the Government of India has recognised that the development of infrastructure within the telecoms sector is imperative to aid economic growth through the encouragement of FDI in the private sector.

The governments plans to liberalise in 1991 was very influential in attracting the private sector to the telecoms industry by opening value added services such as radio paging and cellular mobile services. In 1994, the government introduced the National Telecom Policy, which allowed for the expansion of telecommunication services that would compete in the global market. It also reiterated the importance of the promotion of exports as well as combing FDI with public investment in order to facilitate the manufacturing of telecoms infrastructure that would be available to all major cities as well as small towns.

According to the Department of Telecommunications in India, the telecommunications network consists of 621 million connections as of March 2010. The government has incentivised foreign MNCs to invest in the telecoms sector by allowing a direct route for developing infrastructure within the sector if there is 100% FDI.

Due to the rise in FDI within the telecommunications sector, competition has increased significantly. This has led to a significant fall in tariffs and an increase in connectivity in rural areas. India has also benefitted from private sector investment in Internet and broadband services. The information technology sector in the country is booming significantly, allowing for new technologies to be implemented in order to provide an enhanced service. There has also been a great deal of development in wireless infrastructure in both urban and rural areas.

According to the Deutsche Bank Report in 2007, FDI in the telecoms sector in India between 1991 and 2006 (Final year for 10<sup>th</sup> 5-year plan) was estimated at \$2.8bn. The projection for investment in infrastructure development within the telecommunications sector during the 11<sup>th</sup> 5-year plan (2007-2012) is estimated at \$64.61bn, where 68.75% will come from the private sector through non-governmental organisations and FDI. As you can see, significant emphasis has been placed on developing the telecommunication sector to provide world-class infrastructure that can compete with the rest of the world.

#### ***5.1.1.4. Railways***

India has one of the largest railway networks in the world and is their main mode of transportation. It is seen as the backbone of the Indian economy due to its continuation in transportation of bulk freight and passengers. The importance to develop rail network infrastructure is necessary in making sure that freight users continue to use railways as a provider of much needed capital. However, rail transportation suffered significantly towards the late 90s due to the lack of investment in developing infrastructure. According to Mohan (2004), the average growth rate of freight carried by Indian railways was 5.33% between 1984 and 1991. Since liberalisation in 1991, this figure dropped significantly to 1.86% on average due to the increase in road transportation by the way of the National Highway Development Project.

The need for significant investment in railway infrastructure is essential. The projected investment in the 11<sup>th</sup> 5-year plan was \$65bn, where 40% was to be contributed by the private sector through Indian companies as well as FDI. The introduction of the Dedicated Freight Corridor project was designed to alleviate the growing concern of freight users away from the roads and back onto railways by improving rail routes between Delhi and Mumbai, and Delhi and Kolkata at an estimated cost of \$6bn. Manmohan Singh, the Prime Minister of India, stated in an interview in 2005, that the Indian government is working with the Japanese government in developing the Dedicated Freight Corridor project so that there are improved links between the major cities.

According to the Department of Industrial Policy and Promotion in India, FDI in railway infrastructure has accounted for \$110.41 million between 2000 and 2009. This could increase significantly over the next few years due to government incentives that have been put in place to attract investment from the private sector. Since the Dedicated Freight Corridor project began, freight traffic has been growing at 8% on average. The 11<sup>th</sup> 5-year plan has tried to address the infrastructure problem of the past by upgrading technology and routes for heavy load movement.

#### **5.1.1.5. Ports**

Public and private investment in port infrastructure has increased significantly over the last 20 years. The increase in cargo load has attributed to this and according to the PWC report in 2007, containerised cargo will grow by 15.5% over the next 7 years. The Indian government, in 1998, changed its policy on FDI towards ports. They accepted 100% of FDI through the automatic approval route by way of the Reserve Bank of India. In addition to this, they issued new guidelines on joint port ventures to attract FDI (Mohan, 2004).

There are 12 major ports in India, along with approximately 200 small ports, which are used for trade, both domestic and international. The major ports are involved in close to 75% of all international trade. According to the Deutsche Bank report in 2007, traffic coming in and out of India's ports is set to increase by 10% per year up to 2015. Since liberalisation in 1991, the emergence of India's trade policy has allowed for subsequent private investment in India's port infrastructure to increase substantially. In its 11<sup>th</sup> 5-year plan, private sector investment,



including FDI, has grown at a rate of 23%, which has consequently surpassed public sector spending.

India's geographical presence has attributed to an increase in international trade, and therefore an increase in FDI, to improve its infrastructure. It allows a central connection between Europe and Asia, therefore needing larger ports to be able to handle the volume of imports and exports. Projects are underway to build new ports and develop infrastructure within existing ports by the time the 11<sup>th</sup> 5-year plan has ended this year. The total projected investment, both by the public and private sector, in port infrastructure of the 11<sup>th</sup> 5-year plan was \$22bn.

Chennai is home to one of the major ports in India, which is connected to other major cities such as Kolkata. The cargo that arrives at this port ranges from iron ore to sugar, where in 2009, according to the Ministry of Shipping in India, handled 22.01 million tonnes of traffic. The level of private sector investment expected to develop infrastructure to increase the capacity of the port is approximately \$1bn.

By allowing for private sector participation in the development of ports, the hope is that there is an increase in international trade over the coming years. The investment by foreign nationals has allowed for the Indian government to revise its tariffs to attract more FDI. In addition to this, the government has introduced the National Maritime Development Programme, which has implemented projects to upgrade berths, improve port connections with road and rail traffic and develop and modernise technology and equipment is to achieve world standard port infrastructure.

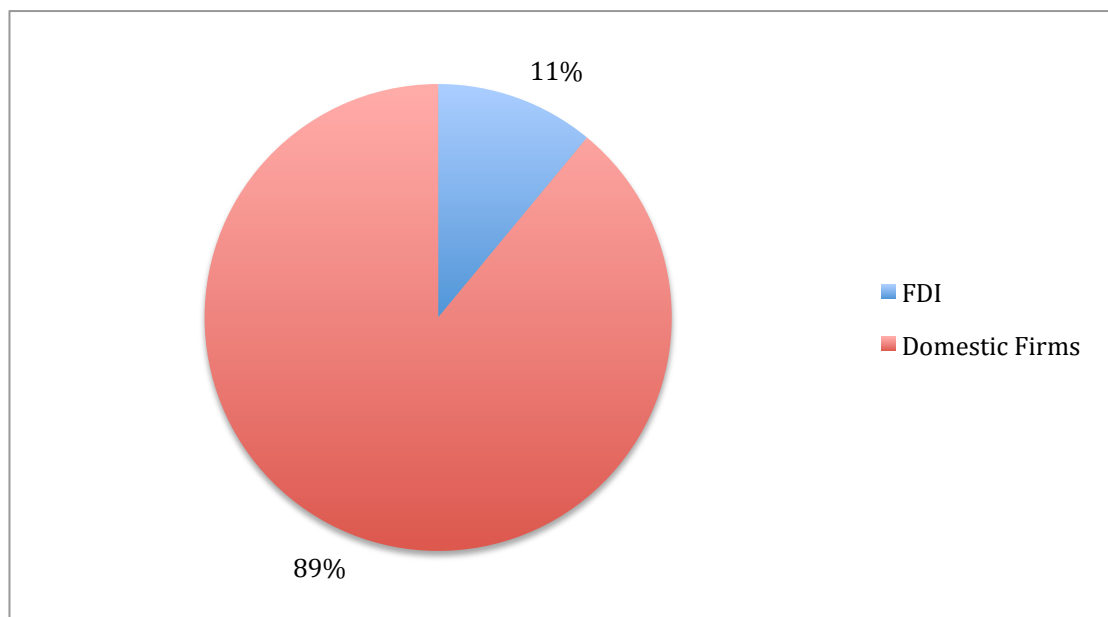
## **5.2. Public-Private Partnerships**

In order for India to grow as an emerging economy at the rate that it has been since 1991, it needs to continue to maintain and develop its core infrastructure. Investment is needed from both the public sector, as well as the private sector, to increase the number of infrastructure projects in different sectors. The Indian government has taken the initiative to continue infrastructure development by introducing Public-Private Partnerships (PPPs) to increase private sector investment, from both foreign and domestic firms. They have defined PPP as “a

project based on a contract or concession agreement between a Government or Statutory entity on the one side and a private sector company on the other side for delivering an infrastructure service on payment of user charges”.

The inclusion of PPP by the Indian government in infrastructure investment and development is at a relatively early stage. They have targeted two specific areas in which PPP would benefit in the development of infrastructure. The first is by funding the infrastructure deficit. The government believe that funding infrastructure projects with public investment would not be sufficient enough and therefore need private sector contribution through FDI and domestic firms. The split between FDI and domestic participation can be seen in figure 10. The second benefit is that it would add value towards infrastructure development, not just through financing, but innovation, efficiency and technology. By involving foreign firms to invest in various infrastructure projects, they will bring their technological and innovative expertise in developing infrastructure in a number of different sectors. Incorporating the private sector in government infrastructure projects, has allowed for larger scale developments to bridge the gap between India and the greater economy.

**Figure 10: FDI in PPP infrastructure projects in India**



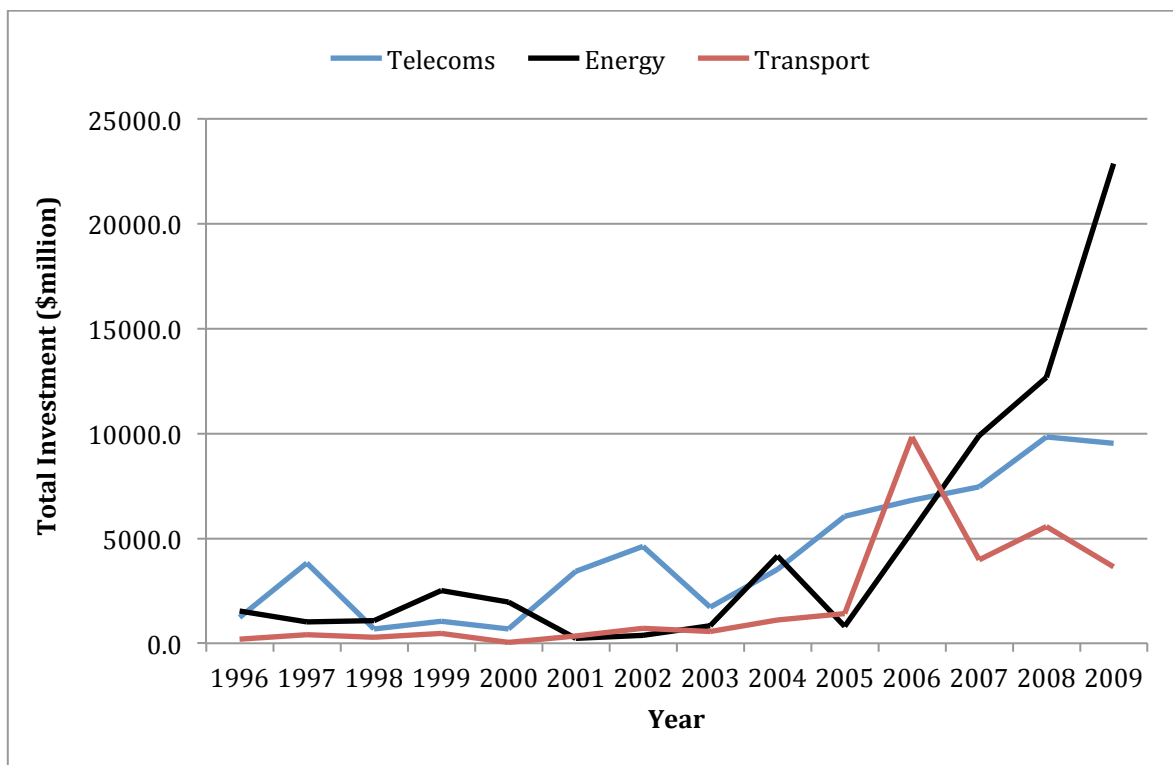
Source: Government of India, Ministry of Finance, PPP in India

The inclusion of PPPs in infrastructure development is growing significantly and is considered a necessity in sector projects involving railway, ports and roads. The number of

foreign investors that have become involved in PPPs has increased over the past few years. An example of an MNC that has become involved in PPP in the power sector is AES Corporation. They are one of the biggest power companies in the world and partook in India's first privatisation program with Odisha Power Generation Corporation (OPGC), a government owned power company. Through the government's PPP projects, OPGC engaged in the scheme, and with AES providing private sector investment, they have been able to provide significant infrastructure improvements in the power sector. Due to its involvement in PPP projects, AES is now bringing its expertise to the power sector to help find solutions in increasing investment in India's infrastructure and encouraging more international trade.

As mentioned before, the level of private participation in government-backed projects has increased in a number of sectors. Figure 11 shows how the telecoms, energy and transportation sectors have attracted private investment in infrastructure development through PPP between 1996 and 2009.

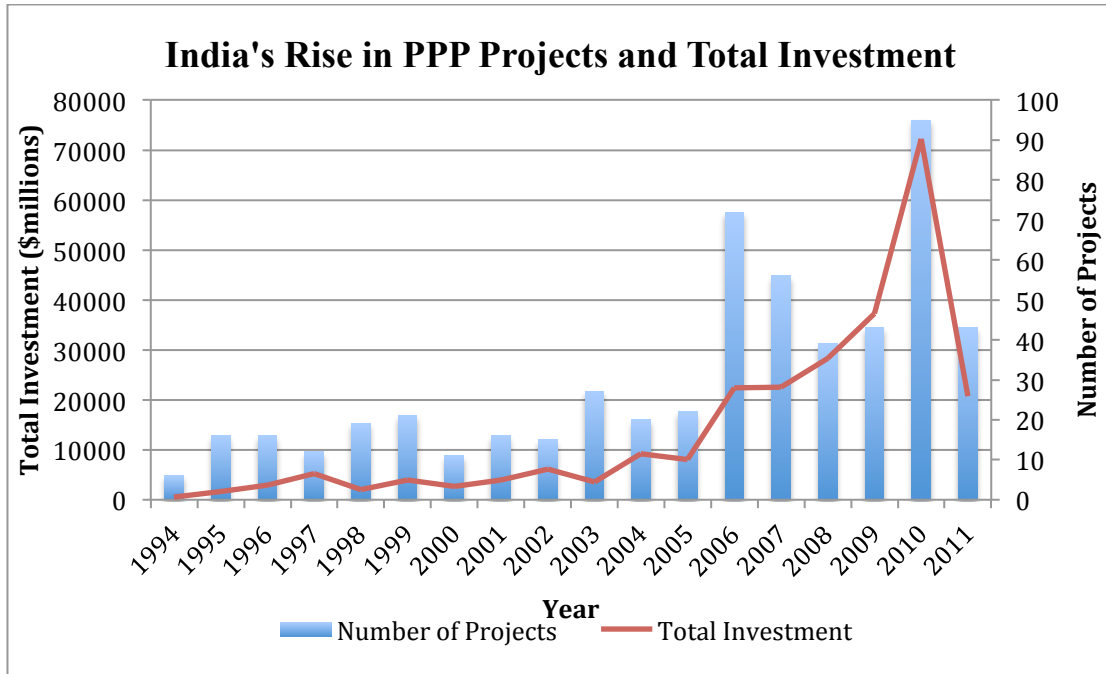
**Figure 11: Sectorial PPP investment between 1996 and 2009 (private sector including FDI)**



Source: Government of India, Ministry of Finance, PPP in India

For foreign investors, India has become an attractive PPP hub and this is set to continue in the future. The number of projects and the value of investment in each project are increasing significantly and this is shown in figure 12.

Figure 12: Number of PPP projects and value of investment per year



Source: Government of India, Ministry of Finance, PPP in India

Even though there is an increase in private participation in the development of infrastructure, India still faces numerous challenges.

### 5.3. Challenges for Foreign Investors in Infrastructure Development in India

Throughout this paper it has been highlighted how India has been, and still is, an attractive proposition for MNCs to invest in infrastructure projects in a number of different sectors. The policy changes that have occurred since 1991 have encouraged an increase in FDI through private sector investment, especially under the PPP structure. However, India still faces a number of challenges in order to ensure that the inflow of investment is continuous so that it can achieve high growth levels to compete with the rest of the open economy. For example, India’s urban infrastructure still shows signs of over-crowded public transport, significant road congestion and under-developed water and sewage system (Deutsche Bank Report, 2007). Further investment is essential in these sectors as the urban population is set to

increase by 20% by 2015 according to a UN estimate (Deutsche Bank Report, 2007). This section looks at the two main challenges that foreign investors still face when contemplating their involvement in infrastructure development in India.

### **5.3.1. Regulation**

One of the main challenges that India faces in attracting FDI from the private sector in infrastructure development is the effectiveness of regulations. “Effective regulation is the most critical condition for reform to protect the interests of both private investors and consumers” (Thomsen & House, 2007). In particular, India’s tariff regulations will determine whether it is viable for a foreign investor to partake in infrastructure projects, provided that they are adjustable (Ahluwalia, 1997). This will allow private investors to ensure that their return on investment is sufficient enough so that the thought of investing in India is subliminal.

However, India’s regulatory environment is still seen as an obstacle in attracting FDI towards infrastructure development. Many projects are dictated through regulatory agreements between the public and private sector, which includes foreign investors. Within these regulations, as mentioned above, is the determination of tariffs, which vary from sector to sector. For example, in India, the independent regulatory body determines port infrastructure tariffs, whereas in road and highway development, the Indian government sets the tariffs. In order to attract foreign investment in the power sector, the independent regulators increased the return on equity from 12% (tariff for public sector investment) to 16% (Ahluwalia, 1997).

One of the major problems of having different sectors controlled by several regulatory bodies is the lack of planning. This can cause a problem for foreign investors, as FDI on development in infrastructure in one sector, can lead to dependence on another sector. Due to regulation differentials, projects can be delayed substantially, costing MNCs or foreign private sector investors a lot of time and money. This was the case regarding the development of Bangalore’s new international airport, where inadequate rail connections and highway access delayed development (PWC report, 2007). Therefore single regulation in various infrastructure sectors may be necessary in order to attract further investment from the private sector.

### ***5.3.2. Financing Infrastructure Projects***

When investing in infrastructure projects, one of the first things that foreign investors look to is their ability to finance the project in order to gain maximum return. This can be through equity financing or a hybrid of equity and debt (mezzanine financing). However, certain regulations in India provide constraints to amicable financing for foreign investors, which may deter them from investing in infrastructure projects.

One of the challenges that foreign private investors face through financing their infrastructure projects in India is the difficulties exiting when they see fit. When a foreign investor enters into an infrastructure project, they will always want to make sure that in a particular contract there is an option to exit. This is usually done by selling their stake in the project either onto another investor, or if it is a PPP, onto the government. However, by investing in infrastructure in India, specific regulation does not allow this, and approval must be sought from the Reserve Bank of India when the foreign investor is ready to sell its stake in the project (World Bank Report, 2006).

There is also a challenge for foreign investors when financing an infrastructure project in India through a hybrid of debt and equity. This is known as mezzanine financing which is attractive to foreign investors as it offers a higher rate of return using subordinated debt rather than senior debt. Even though this option favours India in attracting potential interest of FDI in infrastructure development, interest rate caps on External Commercial Borrowing (ECB) in India ensure that this is not a viable option for foreign investors.

Although there are constraints in infrastructure development in attracting FDI inflow into India, there is also a cause for optimism. With India making short-term goals to aid long term plans to develop its infrastructure with the 5-year plans, investment is increasing in all sectors. As India is coming to the end of the 11<sup>th</sup> 5-year plan, the next section will look at what the subsequent 5-year plan will bring in infrastructure development.

#### **5.4. The Future: India's 12<sup>th</sup> 5-Year Plan**

The 12<sup>th</sup> 5-year plan for India officially begins in April 2012 and there are certain optimisms in the continuation of infrastructure projects and the birth of new ones. The Planning Commission Deputy Chairman, Montek Singh Ahluwalia, stated in an article for the Economic Times at the start of 2011 that “India will double its investments in infrastructure to \$1 trillion during the 12<sup>th</sup> Five Year Plan that begins in 2012, with half of that expected from the private sector”. He continued in an admission on the importance of private sector investment, especially FDI, that “In India, it is clear: It's Private Sector-led growth in which the government plays a very important role in providing the infrastructure that will make this growth possible, and it's the social policy that will make growth inclusive”.

In the 11<sup>th</sup> 5-year plan, infrastructure development was not fulfilled to what the Indian government outlined, and believed that it affected economic growth. The level of infrastructure investment, as a percentage of GDP, was increased from 5.7% in the first year of the plan, to 8% in the final year. However, initial targets that were set out failed to materialise in some sectors such as railway, roads and ports. Therefore infrastructure in areas that have been neglected will be a priority in the years to come in order to aid urbanisation and international trade.

Over the last 5 years, PPP has increased considerably. Due to limits on public investment on infrastructure, India will once again look to the private sector for investment contributions. However, as mentioned earlier, challenges that foreign investors face in infrastructure development in India will need to be revised by the government in order to attract more foreign investment. With the urban population set to increase further, the need for better quality infrastructure is imperative along with long term planning.

One of the problems that MNCs face when investing in infrastructure in India, is the availability of land. Policy on land acquisition is seen as unviable, therefore hampering infrastructure development. Within the next 5-year plan, policy changes are certain to come into effect regarding this topic so that it is easier for infrastructure development in various sectors that require sufficient land.

As mentioned above, the need to increase private sector financing is of the utmost importance for the Indian government to reach specific goals and targets in infrastructure development in its 12<sup>th</sup> 5-year plan. By 2016-17, when the next 5-year plan ends, total investment in infrastructure is targeted at 10% of GDP. With this in mind, the government has targeted private sector investment in infrastructure during the 12<sup>th</sup> plan to be 50% of total investment, up from 30% in the 11<sup>th</sup> plan. To achieve this, the Ministry of Finance has put forward proposals to the Indian Parliament to establish infrastructure debt funds, which will “help infrastructure companies to refinance short term bank debt with long term debt” and “help leverage private investment in infrastructure” (Government of India Planning Commission, 2011).

As we can see, there is certainly cause for optimism within the Indian economy and its infrastructure development programs. With an estimated investment of \$1 trillion in infrastructure in the 12<sup>th</sup> 5-year plan, economic growth is set to increase, putting India in an enhanced position globally. However, despite the efforts of the Indian government to elevate the Indian economy to compete with the rest of the world and to attract FDI to the country, how does this compare against other emerging economies such as China, Brazil and Russia? The next section will compare how India’s indicators fair against the rest of the BRIC nations.

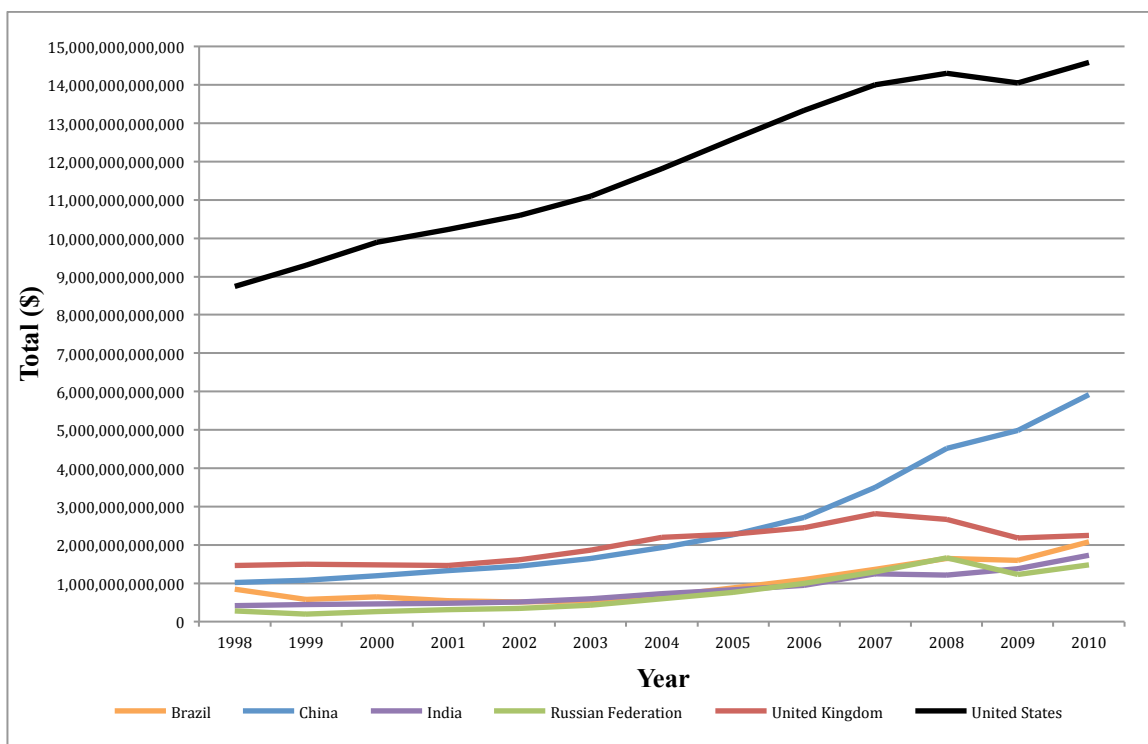


## 6. How FDI in India Compares Against the BRIC Nations

India has seen tremendous growth in its economy since liberalisation in 1991. There are two factors that have highlighted India’s growth potential: its ability to implement policies to compete with other emerging economies as well as developed economies, and its favourable demographics (Purushotaman, 2004). India is still seen as an emerging market and is compared to other countries in the same position, namely Brazil, Russia and China (BRICs). However, it is slowly catching up with developed economies such as the U.S. and UK, due to its increase in global economic power and its willingness to open itself up to international trade in a number of areas including infrastructure.

This section will discuss and compare India’s FDI inflow against the BRIC nations. Before looking at how FDI has grown within these countries, it is essential to demonstrate where India’s economy lies against the other world economies in terms of economic growth. Figure 13 shows the GDP of the BRIC nations, the U.S. and UK.

Figure 13: GDP of BRIC nations, the UK and U.S.



Source: The World Bank

As we can see, India currently lies 5<sup>th</sup> in terms of GDP with the countries selected. It is somewhat off the U.S., and especially China, who has seen enormous growth over the last 5 years. However, more significantly, India is very close to reaching the UK in terms of economic growth, which shows how far the country has come over the last 20 years.

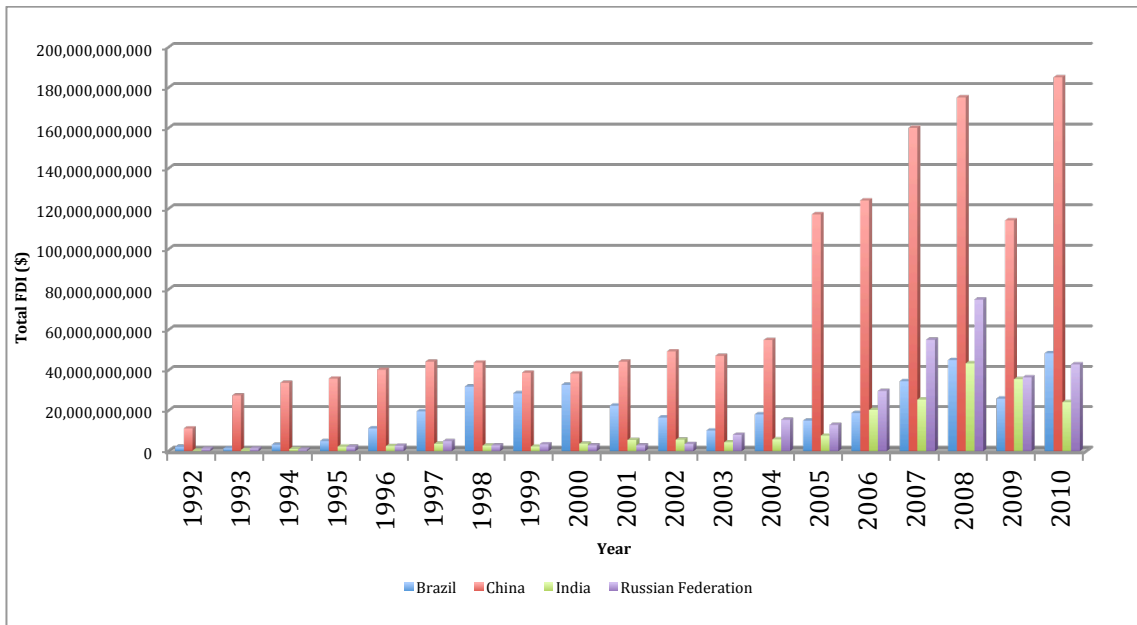
The subsequent part of this chapter will compare how India has fared against the rest of the BRIC nations in attracting FDI.

### **6.1. The BRICs**

The BRICs was a term first used by Jim O'Neill, a Goldman Sachs analyst, in 2001 in the paper "Building Better Global Economic BRICs". In this report, Jim O'Neill predicted correctly that between 2001 and 2011, the BRIC countries would grow enormously in terms of world GDP. According to Wilson and Purushothaman (2006), by the year 2050, the combination of the BRIC economies could be bigger than that of the G6, comprising of France, Germany, Italy, Japan, the U.S. and the UK.

One of the reasons for the BRIC countries economic development is due to the rise in FDI and the massive impact MNCs have had in these emerging nations. Throughout this paper, it has been shown how FDI has allowed India to develop as a nation both in economic terms and infrastructure development. In comparison to the other BRIC nations, India still lags behind, especially when compared to China. This is shown in figure 14.

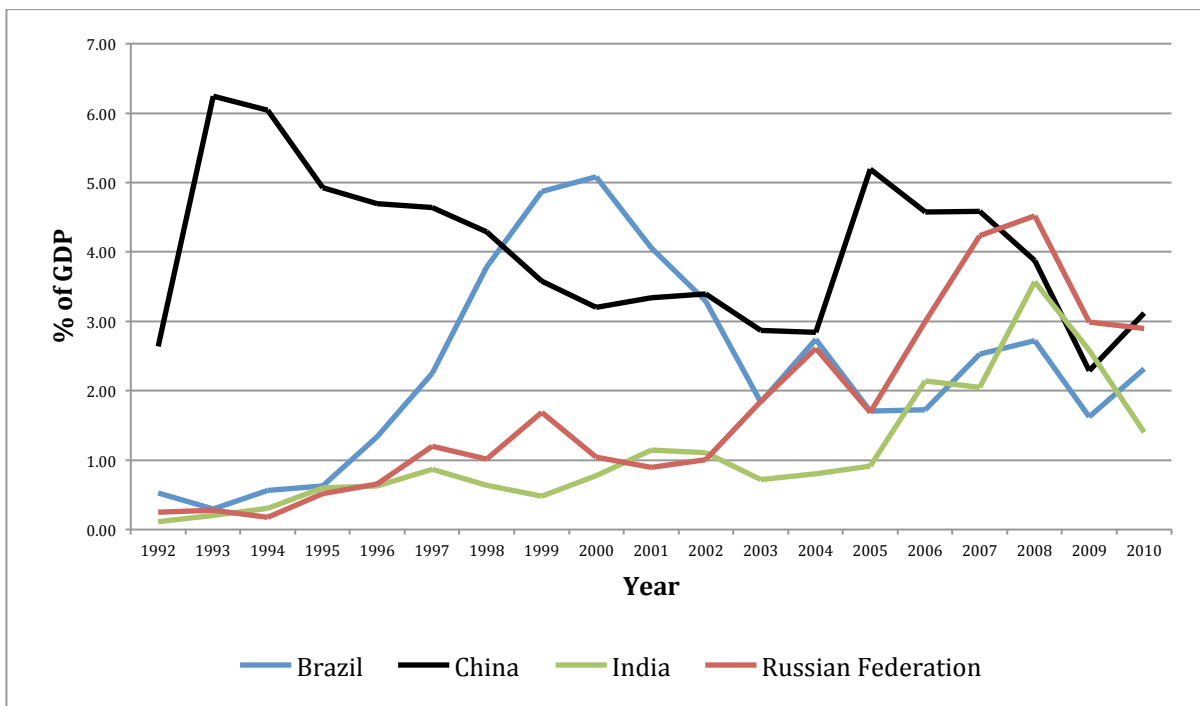
Figure 14: FDI inflow in BRIC nations



Source: The World Bank

As shown in chapter 3, India’s FDI as a percentage of GDP has grown enormously, signifying the impact it has had on economic growth. Figure 15 shows FDI as a percentage of GDP when comparing India to the other BRIC nations.

Figure 15: FDI as a percentage of GDP - BRIC nations



Source: The World Bank

Even though FDI has increased significantly, both in terms of inflow and as a percentage of GDP, there is still potential risks and volatility when investing in these markets.

Since liberalisation in 1991, India has emerged as an attraction for FDI due to its outlook on bringing the world economy closer to its own. FDI has helped India in developing its infrastructure to be able to provide a better quality of life for the people living in both urban and rural areas. But what has the other BRIC nations done in comparison to attract FDI into their country?

### **6.1.1. Brazil**

Brazil has seen a huge rise in FDI inflow in recent years. However, this was not always the case, as 21 years of military rule left the economy in a dire state. This left the country with high rates of inflation and lack of investment in developing its infrastructure (Aulakh, 2006). After ending this period of uncertainty, with a democratic government now in place, Brazil started to look towards opening its economy through various international and liberalisation policies in order to attract the necessary inflow of FDI. The cost of importing technology was reduced, which allowed MNCs to invest in Brazil with equally low investment costs, therefore allowing the country access to foreign technology (Abreu et al, 1994).

In addition to opening its economy to international trade, the government initiated a project to privatise industry through its 1990 National Plan for Privatisation (Aulakh, 2006). This allowed for an increase in private sector participation through FDI, which showed a willingness and openness of its domestic market to foreign MNCs similar to that of India. Due to its policy changes, Brazil has grown significantly and is now able to attract high levels of FDI. A number of MNCs have taken their operations to Brazil in order to take advantage of its exciting prospects, where the population is growing and infrastructure is constantly being developed.

### **6.1.2. China**

Out of all the BRIC nations, China has excelled the most, becoming the world's second largest economy behind the USA. FDI inflow into China has grown enormously due to the

availability of precious resources that many other emerging countries do not have access to. However, this has not always been the case. China was set up as a planned economy until 1978, and refused the inflow of FDI. In 1978, with a new government in place, the economy became more market-oriented, which helped “unleash the traditional entrepreneurial spirit in the Chinese culture and redirected people’s energy from ideology to productive purposes, resulting in a dramatic improvement in economic efficiency” (Chen, 2006).

China introduced its Open-Door policy, which allowed FDI inflow to enter the Chinese economy. In comparison to the rest of the BRIC nations, China has made the highest number of policy changes in favour of attracting FDI (Sauvant, 2006). Because of this strategic change in policy, China has now become the largest destination for FDI (Chen, 2006). With its population over 1 billion, there is a large attraction for MNCs to take advantage of these policy changes. The case for China to join the elite economies such as the U.S. and UK is favourable due to the power it has in attracting FDI and grow as an economy at such a fast pace. Compared to India, the only thing similar in its current standing is its population size, as China has seen how important key policy changes can attract more FDI.

### **6.1.3. *Russia***

Russia had similar policies to China, in that it did not advocate FDI inflow into the country. A change to a market economy allowed for Russia to change its policy on FDI. However, this still did not attract a significant amount of FDI until 5 or 6 years ago, despite the country’s access to natural resources, highly educated labour force and potentially enormous market (Broadman and Recanatini, 2001). Any FDI that Russia did attract went to only four regions of the country: Moscow City, Moscow Oblast, St. Petersburg and Leningrad Oblast.

Amongst the BRIC nations, Russia has seen the least FDI inflow due to its volatile nature. Despite an increase in FDI over the past 5-6 years, Russia is still struggling to open its economy to the world, opting for internal investment and infrastructure development. The uneven distribution of FDI in Russia is a cause for concern when it comes to the growth of the country. The transition towards a market-oriented economy is still an obstacle that needs to be overcome, especially if FDI is to be the saviour towards Russia’s growth problems (Broadman and Recanatini, 2001).

## 6.2. The Future of the BRICs

India, along with the other BRIC nations, has changed numerous policies in order to integrate itself with the world economy. FDI has grown significantly in all four countries due to the willingness of their own respective governments in realising the importance of attracting private investment to aid and sustain development. A study by Goldman Sachs analysts, Dominic Wilson and Roopa Purushothaman in 2003, predicted that the BRICs have the potential to become powerful players in the world economy over the next 50 years. Further studies by Roopa Purushothaman in 2004 compared India's economy and its ability to attract FDI against the other BRIC nations. The projections showed that:

- India will become one of the world's three largest economies in less than 30 years.
- It will be the only BRIC economy to be able to sustain above 5% growth over the next 45 years

In its current climate, China has risen above the rest of the BRIC nations in terms of attracting FDI. Its open-door policy has allowed for MNCs and private foreign investors to approach the Chinese market with a sense of purpose to achieve growth and development for future success.

Russia still shows signs of struggle in attracting FDI. However, due to the size of its economy and the abundance of natural resources that are produced, they will always show potential. For example, the joint venture between BP, a British oil company, and AAR, a group of Russian businessmen, allowed for TNK-BP to become the third largest oil company in the world, which shows that MNCs like BP are willing to invest in Russia.

Brazil, similar to India, has made significant strides in attracting FDI. Due to the popularity for foreign investors to invest in Brazil and the development in infrastructure that has taken place over the last 10 years, it is now set to overtake the UK as the sixth largest economy in the world. Since the economic crisis in 2008, the Brazil economy has relied on FDI to finance its balance of payments, as foreign investors have withdrawn investment from the country's capital markets.

## 7. Conclusion

FDI in India has increased significantly over the past 20 years, allowing it to compete with the likes of developed nations such as the UK and U.S.. Because of this, India is now considered the second most attractive destination for FDI. The reasons for this are clear. Throughout this paper, three words have appeared numerous times to describe the role FDI has played in India: liberalisation, integration and development. These three words have also described the order in which India has progressed as a country to become a powerhouse in the world's economy and a market with enormous potential. The rise in the number of MNCs that have chosen to move their operations to India has increased, and the surge of foreign private investors that have contributed to infrastructure projects have allowed the potential to become a continuous realisation.

As mentioned above, the first step that allowed India to embrace FDI is through policy changes and liberalisation. The balance of payments crisis in 1991 caused significant problems for India, where trade between other countries was in decline and changes by the government were essential. Due to this crisis, where India was at the point of international default, the necessary changes were made and the country was turned into a market-oriented economy. Liberalisation allowed India to reduce its trade deficit and stop the country going deeper into debt. It also changed India's position and tradition of an inward-looking business policy, by attracting more FDI to help rebuild its infrastructure program. Throughout this period, it was the finance minister at the time, Manmohan Singh, who was behind these major changes, which allowed India to follow the second stage of the rebuilding process and allowed a closer integration with the world's economy.

India integrated with the world economy by opening its markets to foreign investors through FDI and MNCs. One of the main reasons that attracted private foreign investors to India was the rise in Economic growth. Between 1991 and 2010, economic growth rose from 1.4% to 8% and in the same period, FDI as a percentage of GDP rose from 0.07% to 2.58%. In addition to economic growth, the Indian government reduced its control and regulation within the financial services sector and introduced various incentives in order to attract FDI inflow. Restrictions on capital inflows and further capital access through bank loans and equity markets allowed MNCs to move part, or 100% in some cases, of its operations to India. The

government also attracted FDI through special economic zones (SEZs), where incentives were based on investment that were directed to certain areas within India. This limited MNCs barriers to enter the India market with the added incentive of the availability of reliable infrastructure at their disposal.

With liberalisation in full flow, and integration seen as a continuous process, India needed to direct the inflow of FDI towards infrastructure development. Since the introduction of the 5-year plans in 1951, infrastructure development has always been a priority for the Indian government. However, since liberalisation, private participation was seen as imperative in order to sustain the level of development that the government recognised would be important for India to compete with the rest of the world.

The Indian government introduced numerous infrastructure projects within various sectors such as power, roads and telecommunications. One element that the government linked all these projects through was public-private partnerships (PPPs), which allowed for the private sector to become involved in public sector initiatives. Foreign investment in infrastructure grew significantly, and in most sectors, 100% FDI was approved through an easier route in order to start and end projects in an efficient manner. The importance of including PPP in infrastructure development was that it would help fund the infrastructure deficit, due to the lack of investment provided by the government. In addition, the government believed that it would add value towards infrastructure development through innovation, efficiency and technology. This would help domestic firms learn and develop from their foreign counterparts.

However, although India has seen a tremendous surge in FDI, there are still challenges that lie ahead. The increase in MNCs entering the Indian market has seen a rise in competition, impacting the ability of domestic firms to generate sufficient revenue to stay in business. FDI in India has seen numerous joint ventures take place between domestic firms and MNCs, which has consequently impacted public sector employment.

The focus of change that the government need to make within infrastructure development in India lies in regulation and financing. India's regulatory environment, such as tariffs, is still seen as an obstacle in attracting FDI towards infrastructure development. The lack of planning



by the Indian government is certainly a cause for concern, as projects that are underway in one sector may impact projects in another sector. This was highlighted with the development of Bangalore's new international airport.

Foreign investors also face problems when trying to finance infrastructure projects in India. The lack of exit options for foreign investors is limited, when involved in private infrastructure development or through PPPs. In addition, foreign investors find it difficult to fund infrastructure projects in India through the hybrid of debt and equity due to interest rate caps on ECB.

Despite the challenges that India face, FDI has increased significantly since 1991. India is competing with the rest of the world in attracting FDI, and is seen by many, as an emerging economy ready to explode further. With an estimated \$1 trillion to be invested in infrastructure programs during the 12<sup>th</sup> 5-year plan, India's economic growth is set to reach new highs. China is currently setting the standards in marketing itself to the rest of the world in terms of FDI out of the BRIC nations. However, with India facing up to its essential needs, the queue to invest in India from foreign shores will certainly continue. And one man who has been at the forefront is current Prime Minister, Manmohan Singh, who was the Finance Minister in 1991, the year India integrated itself with the world's economy.

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## Appendices

### Appendix A

SI. No	Name of Indian Company	Country	Name of Foreign Collaborator	RBI Regional Office	Item of Manufacture	Amount of FDI Inflow	
						(In Rs Crore)	(In US\$ Million)
1	Idea Cellur Ltd	Mauritius	Tmi Mauritius Ltd	Ahmedabad	Telephone Communcation Services	7,294.48	1600.95
2	Bhaik Infotel P. Ltd	Mauritius	Vodafone Mauritius Ltd	New Delhi	Telephone Communcation Services	3,268.12	801.37
3	Etisalat Db Telecom P. Ltd	Mauritius	Etisalat Mauritius Ltd.	Mumbai	Telephone Communcation Services	3,228.45	667.93
4	Aditya Birla Telecom Ltd.	Mauritius	P S Asia Holding Investment (Mauritius)	Mumbai	Telephone Communication Services	2,098.25	419.13
5	Aircel Ltd, Chennai	Mauritius	Global Communications Sev.Pvt Ltd	Region Not Indicated	Telecommuncation Services.	1,876.69	422.01
6	W.S.Electric Ltd	The Bermudas	Schroder Credit Renaissance Fund Ltd	Chennai	Construction And Maintenance Not Elsewhere Classified.	1,780.82	397.05
7	Essar Technology Park Bkc P.Ltd.	Mauritius	Essar Bulsiness Parks Ltd.	Mumbai	Developing And Subdividing Real Estate Into Lots	1,779.99	372.61
8	Dlf Assets Ltd.	Mauritius	De Shaw Composite Investement (Mauritius)	New Delhi	Construction	1,621.20	384.85
9	Reliance Ports And Terminal Ltd	U.K.	Hsbc Bank Plc	Region Not Indicated	Operating Port Facilites.	1,530.00	385.07
10	Reliance Ports And Terminal Ltd.	Country Details Awaited	Royal Bank Of Scotland	Region Not Indicated	Operating Port Facilities	1,530.00	382.29
11	Shyamtelelink Ltd	Russia	Sistema Joint Stock Financial Corporatio	Jaipur	Telephone Communication Services	1,482.00	304.72
12	Aircel Ltd	Mauritius	Global Communication Servies Holdings Ld	Chennai	Telephone Communication Services.	1,250.76	278.26
13	Bharti Tele Ventures Ltd.,	Mauritius		NEW DELHI		1,193.38	265.19
14	Emaar Mgf Land P. Ltd.	Netherlands	Horizon India B.V.	New Delhi	Construction Of Residential Buildings	1,109.90	281.44
15	Mackstar Marketing Pvt. Ltd.	Mauritius	D E Shaw Composite Investments Mauritius	Mumbai	Real Estate Activities	952.91	197.15
16	Reliance Holidays And Resorts India Ltd	U.K.	Hsbc Bank Plc	Region Not Indicated	Operating Port Facilities.	946.56	238.23
17	Emaar Mgf Land Pvt Ltd	Mauritius	Emaar Holdings Ii	New Delhi	Construction Of Residential Buildings Including Additions And Alterations In The Existing Ones.	830.23	203.58
18	Dlf Assets P. Ltd.	Mauritius	New Opportunities I Ltd. Plc	New Delhi	Construction	828.4	196.65
19	Bharti Telecom Ltd.,	Mauritius		New Delhi		716.04	159.12
20	Gold Developers Pvt. Ltd.	Country Det	Gold Developers Pvt Ltd.	Region Not	Construction Of Commercial Premises	708.56	165.02
21	Housing Development & Infrastructure Ltd	NRI(As Indi	Various	Mumbai	Real Estate Activities.	705.67	167.52
22	Emaar Mgf Land P. Ltd.	Netherlands	Horizon (I) Bv	New Delhi	Developing And Subdividing Real Estate Into Lots	682.05	150.01
23	Adani Developers Pvt. Ltd.	Mauritius	Krunal Oil Marketing Pvt. Ltd.	Ahmedabad	Developing & Subdividing Real Estate Into Lots.	602.52	124.29
24	Kingston Properties P. Ltd.	Mauritius	Ss Iii Indian Investements Two Ltd.	Mumbai	Construction Residential Buildings	596.7	147.86
25	Adani Developers Pvt Ltd	Mauritius	Krunal Oil Marketing Pvt Ltd	Ahmedabad	Developing And Subdividing Real Estate Into Lots	568.85	116.49