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# A review study on FDI with special reference to Infrastructure Sector

Sahil Shagal<sup>1</sup>, Swati Sharma<sup>2</sup>

<sup>1</sup>Academic Coordinator in SIAS, <sup>2</sup>Assistant Professor in SIAS

**Abstract:** FDI plays a vital role as in the form of management tool or source of foreign capital in the building of strong economy in India. India's Planning Commission has projected an investment of US\$ 1 trillion for the infrastructure sector during the 12<sup>th</sup> Five-Year Plan (2012–17), with 40 per cent of the funds coming from the country's private sector. India's focus on infrastructure since the turn of the millennium has helped make it the second fastest growing economy in the world. The country's constant growth gives investors, domestic and foreign, a tremendous opportunity for investment in its infrastructure sector. For growing economy like India with more than a billion people infrastructure, which provides essential services to the public, its reflect the reliability, assurance, low cost production, market competitiveness, but problem arises when there is low level of investment in infra from public side.

While the role of foreign investment in the sector cannot be overstated, domestic companies too are making a mark abroad, as attested by Larsen & Toubro's (L&T) contract for the Doha Metro project and GMR Infrastructure's contract to upgrade the Philippines' Mactan–Cebu International Airport.

A strong infrastructure sector is vital to the development of a country's economy. Here, the Indian government has played an important role. Just recently, it allowed 100 per cent foreign direct investment (FDI) under the automatic route for port development projects. The government has also, this year, decided to convert roads into national highways, and has sought collaboration with Sudan in the field of renewable energy & etc...

## I. INDIA AT INTERNATIONAL LEVEL

India slipped to the 14th position on the Global Retail Development Index for 2013, while three Latin American economies — Brazil, Chile and Uruguay — topped the list. Brazil was on the top for the third consecutive time, according to a report by AT Kearney, a global consulting firm. India had occupied the fifth position in the report last year and was referred to as “on the radar” or highly favorable destination. In between 2007 and 2012, India received just under 5000 investment projects with an investment value of us\$326.in total these projects created around 1.4 billion jobs. in 2012, slow economic growth and lack of transparency and consistency in fdi policies constrained inward investment activity. in spite of these bottlenecks and regulatory hurdles weighed on investors confidence. although Indian government moving ahead with reforms designed to attract more fdi in, investors require progress to be made before they are confident about country 's prospects.

FDI reform

Government of India, 26 aug 2013

RETAIL SINGLE BRAND 100%

MULTI BRAND RETAIL 100%

TELECOMMUNICATION SECTOR 100%

ASSEST RECONSTRUCTION SECTOR 100%

COUIER SECTOR 100%

TEA PLANTATION 100%

BROADCASTING 100%

## II. INVESTORS ATTRACT TOWARDS INDIA

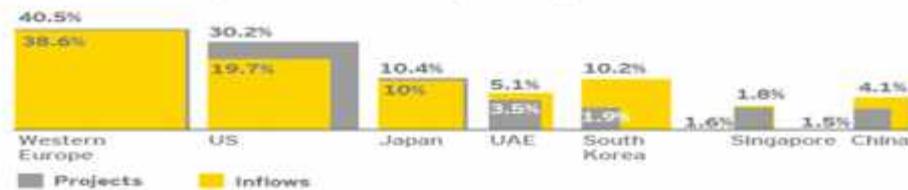
A. India was the fourth-largest recipient of FDI in terms of projects started in 2012, and in terms of value, it accounted for 5.5% of global FDI. Although the number of jobs declined slightly in 2012 (due to a drop in industrial projects) India still accounts for 9.4% of jobs created by FDI around the world.



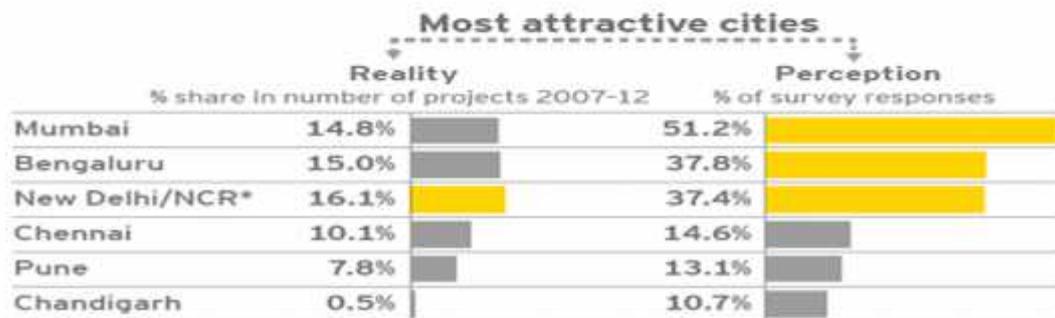
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B. Investors across the world recognize India's FDI potential. Between 2007 and 2012, the US invested the most in India, with 30.2% of projects, followed by Japan with 10.4%. Seven of the top 10 investors in India during 2007-12 were from Western Europe, led by the UK and followed by Germany and France. India's pool of business partners is growing, with a striking 123.3% rise in the number of projects from the Middle East in 2012, mostly in financial services. Southeast Asian countries are also expanding their investment in the country, with projects mainly originating from Singapore, Malaysia and Thailand.

**FDI in India by source country or region (2007-12)**



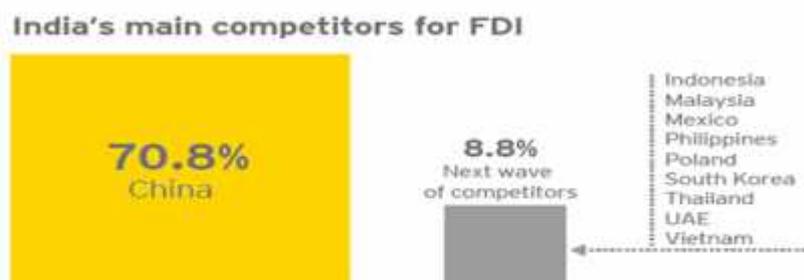
C. Actual FDI performance and our survey results both show that metropolitan cities, such as Mumbai, Bengaluru, the National Capital Region (NCR), Chennai and Pune, remain key attractions. On the other hand, there is a significant awareness gap about tier-II and tier-III Indian cities, which also offer opportunities for investment. Forty-three percent of respondents could not think of any city other than the main metropolitan areas. Among those who responded, Ahmedabad was the preferred choice in emerging cities, followed by Jaipur, Chandigarh, Coimbatore and Surat.



D. TMT is the most attractive sector to investors, followed by industrial and business services. While TMT will remain the leading sector, investors expect the infrastructure and industrial sectors to become more attractive in the next two years.



E. China remains India's main competitor for FDI as both economies are strongly competing to obtain a greater share of world trade and investment. Alongside, new destinations such as Indonesia, the Philippines and Vietnam, are also emerging as competitors. The Philippines is competing with India in the outsourcing industry, whereas Indonesia and Vietnam are also gaining significance due to their huge domestic market.



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F. India's appeal lies in its competitive labor costs, lucrative domestic market, and its skilled workforce. Foreign investors also applaud its strong management and business education system, as well as its improving telecommunications infrastructure. However, the country's weaknesses are its under-developed infrastructure and a restrictive operative environment.



G. Respondents to our 2014 survey expect India to be among the top three economies of the world in 2020, particularly for economic growth and manufacturing. This is consistent with our 2012 results. Also, this year only 5.2% of respondents expect India to be surpassed by competition from more dynamic countries, compared with 11% last year. Strengths such as a burgeoning middle class, growing domestic consumption levels and a skilled workforce are helping India to strengthen its position in the global marketplace.

### III. MARKET SIZE

The value of total roads and bridges infrastructure in the country is projected to grow at a compound annual growth rate (CAGR) of 17.4 per cent over FY 12–17. India's roads and bridges infrastructure, which was valued at US\$ 6.9 billion in 2009, is expected to reach US\$ 19.2 billion by 2017.

The total approximate earnings of the Indian Railways on originating basis during FY 13–14 were Rs 140,485.02 crore (US\$ 23.34 billion) as against Rs 121,831.65 crore (US\$ 20.25 billion) during FY 12–13.

The capacity of ports in India by the end of the 12th Five-Year Plan is targeted to touch 2,493.10 million tonnes per annum (MTPA) as compared to 1,245.30 MTPA at the end of the 11th Five-Year Plan (2007–12).

### IV. INVESTMENTS

The FDI inflows in construction (infrastructure) activities during the period April 2000 – March 2014 stood at US\$ 2,575.79 million, as per the data released by Department of Industrial Policy and Promotion (DIPP).

Recent months have witnessed key investments and developments in the India's infrastructure sector, some of which are summarized below:

In the roads segment, Punj Lloyd has received a 'Letter of Award' for the construction of a 42 km, 2x3 lane dual carriageway project between Doraigh and NoubatDokaim from the Ministry of Public Works and Highways, Yemen. The project, which is the company's first major expressway project in the Middle East, is valued at Rs 1,270 crore (US\$ 211.070485 million).

Similarly, IRB Infrastructure Developers has received a 'Letter of Award' from the National Highways Authority of India for four-laning the Yedeshi–Aurangabad section of NH-211. The estimated cost of the toll project, which totals to about 190 km, is Rs 3,200 crore (US\$ 531.87 million) and it will be undertaken on design, build, finance operate and transfer basis.

In the railways segment, online railway ticket bookings grew almost three-fold to reach 14.02 million units in March 2014, a year-on-year growth of 286 per cent over March 2013, as per the monthly tracker of Internet and Mobile Association of India and IMRB.

In another development, Larsen & Toubro (L&T) received aRs 4,510 crore (US\$ 749.65 million) order from Qatar Railways Company in April 2014, for design and construction of the Gold Line of the Doha Metro project.

In the ports segment, Adani Ports and Special Economic Zone acquired Dhamra Port Company for Rs 5,500 crore (US\$ 914.21 million) in May 2014. Dhamra Port is a major and newly developed port in Odisha's Bhadrak district.

Also, Jawaharlal Nehru Port Trust (JNPT) and Port of Singapore Authority (PSA) signed a concession agreement for JNPT's fourth container terminal, on May 6, 2014. The Rs 8,000 crore (US\$ 1.32 billion) project is being funded through 100 per cent FDI and is PSA's fourth project in India.

In the power segment, Bharat Heavy Electricals Ltd (BHEL) has commissioned a 160 megawatt (MW) gas-based power plant at Jaisalmer in Rajasthan for the state's power generation company. Rajasthan RajyaVidyutUtpadan Nigam Ltd had placed the order on BHEL for setting up the power plant as an expansion of the existing Ramgarh power plant.

Also, Swelect Energy Systems has commissioned its 15 MW solar energy park set up with an investment of Rs 106 crore (US\$ 17.61 million) near Vellakoil in Karur district. The company has already established over 1,500 rooftop projects across India.

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In the aviation segment, GMR Infrastructure has received a contract to upgrade Mactan–Cebu International Airport in the Philippines. GMR and its partner, Philippine firm Megawide Construction will make an upfront concession payment of US\$ 325 million and invest US\$ 375 million over the next five years to construct a new terminal and improve the current one.

### A. Government Initiatives

Some of the Indian government's recent initiatives in the infrastructure sector are summarized below:

The Union Cabinet in February 2014 gave its approval for declaration of around 7,200 km of State Roads as new national highways. Other road development projects in the pipeline include existing national highways network totaling 21,271 km, which are not covered under any programmes/schemes as of now.

Also, in a move to enhance energy efficiency of the Indian Railways, a web-based Electrical Energy Management System, RAILSAYER, was inaugurated by Mr Kulbhushan, Member Electrical, Railway Board, in April 2014. The portal will be used for tackling the challenges of global warming and sustainability of the environment.

In another development, the Indian government has facilitated 100 per cent FDI under the automatic route for port development projects. A 10-year tax holiday has been accorded to enterprises that are engaged in the business of developing, maintaining and operating ports, inland waterways and inland ports.

The country is also looking to collaborate with foreign partners. India and Sudan have good potential for enhancing cooperation in promoting renewable energy, as per Dr Farooq Abdullah, Union Minister of New and Renewable Energy, Government of India. The Minister has also offered Indian assistance for developing renewable energy resources in Sudan.

### B. Roads

With India's rapid urbanization and an ever-increasing middle class, the need for sound infrastructure is paramount. About 590 million people—the figure was 377 million in 2011—will reside in cities by 2030, and could have a direct bearing on 70 per cent of the country's gross domestic product (GDP), as per a McKinsey report. Research from the Economist Intelligence Unit expects that infrastructure spending and the growth of the country's lower middle class will prop GDP growth over the coming years, achieving 4.5 percent in 2014 and 5.7 percent by 2017

### C. Investment Opportunities

The road sector in India will call for investments in the range of US\$75-90 billion over the next five years and India's construction sector is anticipated to grow at about 35 percent between the 2008–09 FY and the 2012–13 FY. The private sector is likely to contribute 44 percent of the country's total projected spending of US\$100 billion on roads and highways during the 12th Five-Year Plan period.

The Indian government has initiated the National Highway Development Programme (NHDP) involving a total investment of US\$50 billion on concessions/contracts to be awarded by 2012. Under this program, a length of about 15,000 kilometers has been completed and about 10,000 kilometers is under construction. In the next three years, it is planned to take up new sections of about 25,000 kilometers through a combination of public private partnerships (PPPs) and engineering procurement and construction (EPC).

To speed up the pace of the NHDP, the Union Government has entered into MOUs with some state governments who will undertake PPP projects on behalf of the Union Government. A number of projects are in different stages of bidding and award. Based on competitive bidding, up to 40 percent of the project cost is being provided as practicality gap funding for National Highway Projects.

The work on five major NH projects in Orissa, Bhubaneswar-Puri, Bhubaneswar-Sambalpur, Bhubaneswar-Chandikhole, Sambalpur-Bargarh and Remudi-Rajamunda (NH-215) began in February 2011. The work is being taken up on the PPP mode and the cost assessment will be made by NHAI. The government has also started the Bharat Nirman Program that plans to map every village having a population of over 1,000, or over 500 in hilly and tribal areas.

### D. Investment policy updates

As per the newer policy updates from DIPP, 100 percent FDI under the automatic route is allowed for:

1. Support services to land transport, such as operation of highway bridges, toll roads, and vehicular tunnels
2. Services incidental to transport, such as cargo handling incidental to land transport
3. Construction and maintenance of roads and bridges
4. Construction and maintenance of roads and highways offered on build-on-transfer (BOT) basis, including collection of toll

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Highway widening projects will now be eligible for the 10-year tax break under Section 80 IA of the Income Tax Act. The Central Board of Direct Taxes (CBDT) has clarified that widening of existing roads by constructing additional lanes as a part of a highway project, by an undertaking, will be regarded as a new infrastructure facility. This clarification will help highway developers receive tax deductions for a 10-year period under Section 80IA of the Income Tax Act

### *E. Government initiatives*

1. 100 percent FDI under the automatic route in all road development projects.
2. 100 percent income tax exemption for a period of 10 years.
3. Cabinet Committee on Economic Affairs (CCEA) has agreed upon the National Highways Fee (Determination of Rates and Collection) Rules, 2008 to establish uniformity in fee rates for public-funded and private investment projects.
4. An increment in the overseas borrowing amount of infrastructure sectors to US\$500 million from US\$100 million.
5. Offering cheaper loans for highway projects that will speed up the projects worth more than US\$12.70 billion under separate phases of the NHDP.
6. The Ministry of Shipping and Road Transport is considering a green corridor highway project solely for farmers with no toll charges that would link rural roads with national highways. This is likely to be developed along with the six-lane project under the NHDP.
7. A Rs. 41,200 crores (US\$5 billion) project plans to lay six lane roads over 6,500 kilometers of National Highways on the Design Build Finance and Operate (DBFO) basis in Golden Quadrilateral and other high traffic stretches.

### *F. Airports*

Including grass runways, India has a total of almost 500 airports, of which 16 have international status. Of these, the Airports Authority of India (AAI) manages 125. The AAI has stated it aims to upgrade all of these as well as adding new locations to better unify the country within the next 10 years. This will require significant infrastructure investment in terminals, runways and related construction to generate full operational and passenger management capabilities

According to the AAI, development of Indian airports received US\$8.5 billion in investments during the 11th Five Year Plan. The airports in Mumbai and Delhi have already been privatized and upgraded through an estimated investment of US\$4 billion. The redevelopment of Mumbai International airport, taken up under the 11th Five Year Plan, is at an advanced stage of completion.

The 12th Five Year Plan stipulates the building of three new airports: Navi Mumbai Airport, the Goa Airport and the Kannur Airport. A policy to make some of the current airports into international hubs is also being considered.

The AAI plans to invest an additional US\$3.07 billion between 2010 and 2015. From this, 43 percent will be for the three metro airports in Kolkata, Chennai and Trivandrum. The remainder will be invested in upgrading other non-metro airports and in the modernization of the existing aeronautical facilities, such as radar and related equipment upgrades.

The 'open sky' policy of the government and rapid air traffic growth have resulted in the entry of several new privately owned airlines and increased flights for international airlines. Foreign airlines currently have the lion's share of passenger traffic into and out of India as the approvals procedures for obtaining a license to operate in India as a foreign airline is just two years, as opposed to five for Indian domestic carriers operating international routes.

The following statistics and figures have been reported by the Ministry of Civil Aviation:

1. The compound annual growth rate of passenger traffic in airports throughout India is projected to grow at over 15 percent over the next few years
2. Cargo traffic is expected to grow at over 20 percent per annum
3. 100 percent FDI is permissible for existing airports (approval by India's Foreign Investment Promotion Board is required for FDI beyond 74 percent)
4. 100 percent FDI under the automatic route is permissible for Greenfield airports
5. 49 percent FDI is permissible in domestic airlines under the automatic route, yet not by foreign airline companies
6. 100 percent equity ownership by non-resident Indians is permitted
7. 100 percent tax exemption for airport projects for a period of 10 years

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## G. Railway

Pushing ahead with the reforms agenda, the government on Wednesday approved raising FDI limit in the defence sector to 49 per cent and opened up the railway infrastructure segment for foreign direct investment.

In relation to the railways, the Cabinet approved allowing 100 per cent FDI in areas such as high-speed train systems, suburban corridors and dedicated freight line projects implemented in PPP mode.

## V. SUMMARY AND CONCLUSIONS

The 1990s saw an unprecedented increase in private foreign investment in infrastructure projects in developing countries. Much of this investment was in the telecommunications and electricity industries. For the private sector, infrastructure investment is associated with a sizeable investor risk linked to the long-term sunk cost characteristics of infrastructure projects. For the government, the involvement of the private sector in “natural monopolies” raises new challenges in designing regulatory structures that can control anti-competitive or monopolistic behavior, while at the same time maintaining the attractiveness of the domestic economy to potential foreign investors in the infrastructure industries. The purpose of this article was to assess the impact of regulatory governance on FDI in infrastructure projects in middle and low income economies. Using a dataset on private participation in infrastructure projects in developing countries for the period 1990 to 2002 recently made available by the World estimate the determinants of FDI in infrastructure. The determinants were grouped into control variables for economic policy and structural characteristics and infrastructure regulation variables. The selection of control variables was motivated by existing research on FDI, and our results are consistent with the empirical evidence on the key determinants of FDI reported in the literature. Three alternative measures of regulation quality were used in our empirical analysis. All are positively signed and statistically significant.

We interpret these results as confirmation of the basic hypothesis that FDI in infrastructure responds positively to the existence of an effective regulatory framework that provides regulatory creditability to the private sector.

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