CHAPTER 1

FINANCING OF INFRASTRUCTURE

1.1 INTRODUCTION

Infrastructure refers to the physical framework of facilities through which goods and services are provided to the public. The infrastructure sector covers a wide spectrum of services such as transportation (including roadways, railways, airways and water transportation), power generation, transmission and distribution, telecommunication, port handling facilities, water supply, sewage disposal, irrigation, medical, educational and other primary services. Some of these services have a direct impact on the working of a business enterprise, while others are more important from a societal point of view. It contributes to economic development by increasing productivity and by providing amenities that enhance the quality of life. The availability of adequate infrastructure facilities is essential for the overall economic development of a country.

In a developing country like India, infrastructure is recognized as a major bottleneck to development and for the development of the country it is to be of truly world class. Today, there is a need of focus on enhancing the quality as well as the quantity of infrastructure services provided in India. The Union Finance Minister, Manmohan Singh, in his budget speech for the year 1995-96, said that if we are to aim at economic growth of 7 to 8 per cent, then we need much larger investment and much greater efficiency in key infrastructure sectors, such as power, roads, ports, irrigation, railways and telecommunications. The importance of infrastructure also follows from the fact that foreign investors are now looking at the
infrastructural development as a yardstick for directing their investments. It is because of this, Infrastructure has been one of the high priority areas in the planning process of India.

The interest in infrastructure is showing a wave-like pattern. In the period of the sixties a broad interest in infrastructure expansion emerged as a result of the unprecedented economic growth requiring the construction of large infrastructure networks. In the seventies much more emphasis was given to more efficient use of existing network capacity, due to the limits to growth discussion (including environmental externalities and resource scarcity). In the eighties, the attention moved towards infrastructure and economic stagnation, as a result of a particular interest in the relationship between investment and employment, as well as the restructuring effects of new infrastructure came in front. Very recently, the relationship between infrastructure and international trade and competition has given due attention. (Peschel Karin)

A strong and well developed infrastructure forms the backbone of all the developed and healthy economies. Its financing therefore is an important aspect of the development dynamics. The fact that India needs at least $25 billion per year for the next 8-10 years clearly highlights the role of infrastructure in creeping economic growth. Infrastructure projects require not only massive investments and their efficient execution but also their proper management.

Right from the year 1947, till around 1994, there have been some debates about which part of the infrastructure sector is needed to be in the public sector, and which part in the private sector. The categorization of industries and the division of economic activity into
public and private sector given in the Industrial Policy resolutions of 1948 and 1956 clearly show the prime role of the state in providing these facilities. Traditionally, Government Policy and finance have an important role to play in infrastructure because of its pervasive impact on economic development and human welfare. Moreover, infrastructure has been provided by the government; as it can take the investment risk. The projects were financed through budgetary allocations, grants by state or central governments and long term debt provided by the leading development financial institutions like IDBI (Industrial Development Bank of India) and ICICI. These services were kept within the public sector units due to the fear that private operators might exploit the natural monopoly of the utilities and other infrastructure services. The government in developing countries like India, on the other hand, has been regarded as the most creditworthy and have been able to arrange resources at low cost for the required investment. Public sector in India has been largely subsidized by the Government since the launching of reform and now the Government is trying to reduce its borrowing which means that further subsidization will not be possible which would prove to be inadequate. According to estimates, the gap in infrastructure is costing India between 1.5-2 per cent of GDP growth every year.

The infrastructure sector is one area where there is a need for private sector and foreign investment to come in. There are two important reasons for engaging them: - Firstly, Government does not have the required funds due to priorities of other commitments. Secondly, the private sector would probably be more efficient in building roads, airports and electric power plants. If government wants to engage the private sector in these projects it has to come out
with realistic policies to attract private players. Establishing robust and autonomous regulatory structure is important to create the required trust and confidence in investors.

According to the Government, India would need about $320 billion investment (at 2005/06 prices) in various infrastructure sectors during the Eleventh Five Year Plan (2007-12). Of this, given a debt-equity ratio of 70:30, about $250 billion of debt and $100 billion of equity needs to be raised over a five-year period. Of the $100 billion equity, about $25 billion would have to come from the private sector over the next five years i.e., about $5 billion per year. According to Natarajan Narasimhan, head of research, Crisil Research, “The total investments during the period 2008-12 is estimated at $60 billion for roads, $75 billion for power, $22 billion for telecom and $10 billion for ports.”

The Tenth Five Year Plan had targeted an annual growth of 8 per cent in GDP over 2002-07 as compared to the average of 5.6 to 5.7 per cent recorded during the eighties and nineties. According to the Tenth Five Year Plan, the cumulative investment requirement during 2001-02 to 2005-06 had been estimated at Rs. 700,000 crores (US $ 156 billion). Of this, 40 per cent was required in the power sector, 11 per cent in telecom and around 14 per cent in roads and railways.

In the mid-term appraisal of the Tenth Five Year Plan, the Prime Minister, Dr. Manmohan Singh said, “There was a need for substantial hike in private investment to set up the growth rate and generate enough resources for meeting the government’s commitments in social sectors and infrastructure. The government
will have to incentivise the private sector to enter unfamiliar areas through well designed public-private partnership models.”

According to the National Council of Applied Economic Research (NCAER) as much as $215 billion is needed to improve India’s infrastructure. The Expert Group on Commercialisation of Infrastructure Projects had estimated the cost of development of India’s infrastructure at $115 to $130 billion. The cost may vary depending on how we define infrastructure.

In his meeting with CEOs of top American Companies in New York in 2004, the Prime Minister emphasizes the need for infrastructure development. He estimated the requirement of $150 billion in 10 years for the sector. He described the development of infrastructure as the biggest challenge but also as the biggest opportunity to private sector.

The Common Minimum Programme (CMP) of the Congress led UPA Government attaches the highest priority to the development and expansion of physical infrastructure like roads, highways, ports, power, railways, water supply, sewage treatment and sanitation. ‘Public investment in infrastructure will be enhanced, even as the role of the private sector is expanded subsidies will be made explicit and provided through the budget.’

At the conference on Infrastructure organized by Ministry of Commerce and Industry & FICCI, Shri Kamal Nath (Ministry of Commerce & Industry) in his speech said, “The Government of India has recognized its role as more of a facilitator in enabling investment in the infrastructure sector in association with the private sector rather than being a creator.”
Over the years, the Government had taken various steps to encourage Foreign Direct Investment (FDI) in infrastructure sector. Recently, the finance ministry announced changes in the External Commercial Borrowings (ECBs) policy. Moreover, 100% FDI or substantial FDI with automatic approval is permitted. Transport, power and use of urban infrastructure, permits 100% investment and telecom, airports and civil aviation have recently shown an increase from 49% to 74%. The Foreign Institutional Investors (FIIs) are also allowed to invest in unlisted companies to encourage foreign funds flows into the infrastructure sector. Not only this, the Cabinet Committee on Foreign Investment (CCFI) has modified the 49% cap on foreign equity in the infrastructure sector to render fund mobilization easier and in order to make the core sector attractive for FDI.

In this regard, Finance Minister Jaswant Singh announced the viability gap funding scheme in his 2003 budget. According to Mr. Singh, “there is need to encourage public-private partnership, so that funds are leveraged, and the quality of service delivered improved, thus yielding better value for money” in developing infrastructure. The infrastructure development scheme announced by the minister was to cover 48 new road projects at an estimated cost of Rs. 40,000 crore; National Rail Vikas Yojana Projects worth Rs. 8,000 crore; renovation/modernization of two airports, and two sea ports at an estimated cost of Rs. 11,000 crore. According to the minister, the money would be generated with a novel funding mechanism. The essence of the new funding mechanism was to leverage public money through private sector partnership, wherever possible.
On the contrary, there were the considerations that the large investment requirements and long gestation periods would serve as a serious disincentive to private participation. Privatization of infrastructure is not simple as roads, bridges, railways and dams are public routes and there are sensitivities involved. But, certain areas like power, telecommunications, transportation etc. need further expansion & modernization and the public sector alone can no longer fully carry out the requirements. Public provision has, however, had its many problems. Lack of accountability has led to poor management and cost overruns. Further operation and maintenance has been neglected, in budgetary allocations. Backlog of unmet demands remain to be met. The more fundamental problems with public sector provision of infrastructure is related to the macro-economic constraints on the government, a BOP problem with a widening deficit on the current account. Despite their recognized importance, mostly infrastructure expenditures are the most vulnerable to cuts in government budgets during periods of fiscal adjustments.

A World Bank study had estimated that developing countries as a whole invest about $200 billion per year in physical infrastructure facilities (IIR, p.3), which is about 4 percent of their GDP. About $160 billion (80%) is financed through domestic public resources and $25 billion (12.5%) through international development assistance and the remaining $15 billion (7.5%) through private capital. The private sector’s share in infrastructure investment is still small though rising at a faster rate in many countries and sectors. The World Bank also estimated that to maintain 7 to 9 per cent economic growth rate, countries in East Asia would need to invest between 6.5 to 9.0 per
cent of their GDP in infrastructure. (IIR, p44) The East Asian economies have steadily increased infrastructure investment in absolute terms and as a proportion of their GDP.

**Public-Private Participation**

Financing infrastructure is a challenging subject, whether in India or anywhere else in the world. It is widely recognised that neither the private sector nor the public sector can be relied upon fully for adequate provision of infrastructural services. The solution to the complex problem of financing infrastructure could probably lie in a combination of both, public-private partnership (PPP) based on their inherent strengths and weaknesses. Public Private Partnership (PPP) project means ‘one 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, for delivering an infrastructure service on payment of user charges. PPPs are essentially win-win solutions that seek to draw on the strengths of both sectors’. The private sector is more efficient for the provision of public infrastructure like roads, bridges, water supply and sewerage projects, ports and airports, etc in a better way and on the other hand, the public sector ensures certain concessions, and reduces some of the risks. Therefore, the combination of the public and private sectors is likely to result in better and more efficient services not only at the least cost but also of the good quality and at proper time. The positive qualities of the partnership for infrastructure development appear beneficial for the developing countries like India having huge financing requirements with the scarcity of funding. Currently, the PPP model is being applied to finance many projects in India like freight corridors on Delhi-Howrah and Delhi-Mumbai routes,
Greenfield airports in Bangalore and Hyderabad and modernisation of the Mumbai and Delhi airports.

Following the economic reforms, several steps were taken to increase growth in the infrastructure sector. A specialised financial intermediary for infrastructure was incorporated in 1997 called IDFC (Infrastructure Development Financial Corporation). In the past two years, IDFC has contributed to the financing of 3,600 MW of additional power generating capacity, has financed about 1,000 km of new roads and 3.5 million tonnage of additional port capacity. IDFC Private Equity, a 100 per cent subsidiary of IDFC, manages an infrastructure focused private equity fund in the country with an amount of $636 million. The infrastructure projects faced the problem of securing long term debt after the conversion of the development financial institutions (DFIs) like IDBI Bank and ICICI Bank, into commercial banks which continue to lend to infrastructure projects but through shorter maturities loans. The Indian government has set up Indian Infrastructure Finance Corporation Ltd (IIFCL) to secure long term debt for infrastructure projects. IIFCL can borrow up to $2.32 billion guaranteed by the government. Despite this, IDFC, Citigroup, IIFCL and Blackstone in February 2008 launched the ‘The India Infrastructure Financing Initiative’ to invest $5 billion for infrastructure projects in India. IDFC, Citi and Blackstone are likely to invest $75 million each while IIFCL is likely to invest $25 million in the equity fund, totalling the investment to $250 million. The balance is being raised from international and domestic institutional investors.

There is a need to find out more creative solutions for funding. One such idea was suggested by the finance minister in his budget
speech: to use foreign exchange reserves for meeting long term capital needs. However, the Reserve Bank of India (RBI) is yet to take a decision on the same.

1.2 OBJECTIVES OF THE STUDY: The main objective of my endeavour in this study is to analyse the present scenario of infrastructure in India and try to find out financing trends of public and private sector in this field separately as well as jointly.

I also aim to justify the questions: “To what extent financing is essential in infrastructure development by public as well as private sector including foreign investors? What are the constraints of such developmental efforts? The major issues involved in such an endeavour would also be the focus of our attention in this work.

1.3 HYPOTHESES: Keeping in view the above mentioned objectives the hypotheses of the present research effort are –

a. Energy, Transport and Communication being the major components of economic infrastructure and essential ingredients of rapid economic development require massive investments and latest technological know-how.

b. Lack of finance is the major constraint in the growth of Energy, Transport and Communication sectors as the major components of infrastructure in the country.

As India is a developing country, the public sector of the country, with all sorts of constraints; deficiencies and shortages of physical and financial resources cannot afford to invest huge capital in these sectors. Therefore, in order to overcome the deficiency of public sector capital and to obtain advanced technology, India must
undertake substantial development of economic infrastructure with the help of private and foreign capital & investments.

1.4 METHODOLOGY: Keeping the above mentioned objectives in mind this study is divided into three stages:

In the initial stage a detailed study of the existing published literature on energy sector, transport sector and communication sector in India was made so as to get fully acquainted with the subject.

During the second stage of this study, the data and literature available pertinent to the study was collected from various resources such as Journals, Government Reports, and Plan Documents.

Finally during the third phase of this study the data and information which was collected, arranged, analyzed, and interpreted for arriving at some meaningful conclusions and recommendations.

1.5 SCOPE OF THE STUDY: This study is a maiden effort in highlighting the impact of infrastructural development on the Indian Economy as a whole. The evaluation of the impact of financing of infrastructural development of the country may provide insights to private investors into the planning process of investing in infrastructure sector, and a direction to the Government policy makers in devising future policies for infrastructural development.

For academicians, the study would be useful for a critical appraisal of financing of infrastructure of different sectors. The study shall prove helpful in providing a direction for future research in this area. To students, this research study may serve as a tool for understanding the Government’s financing policy in the field of infrastructure. Moreover, they would also come to know about how
private investors shape their policies for its development in a rapidly changing environment.

To many others, the study may prove of interest in knowing as to what extent finance can be proved useful for the development of infrastructure of India and what are the relative contributions of public, and private sectors including foreign sector in the development of infrastructure in India.

1.6 **LIMITATIONS OF THE STUDY:** The study covers the most important components of infrastructure in Indian economy. However, there are other components as well but covering each and every component would not have been practically possible. Therefore, other components have not been covered and are beyond the scope of the study. It is needless to say that analysis of the whole is a gigantic task and it has not been possible to cover each and every aspect of infrastructure which needs to be addressed by further research work.