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Financing of Infrastructure in India

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Abstract—*The basic infrastructure of any country is the backbone for its long-term economic growth and employment generation. Investment in infrastructure is a prerequisite to attain GDP growth of 8 per cent or above. Infrastructure projects are complex, capital intensive and have long gestation periods that involve and pose unique and at times multiple risks to project financers. Due to its non - recourse financing and complexity, infrastructure financing requires a mix of financial resources from banks, corporate sector, pension funds, insurance, Government and private participation. In this context, this paper attempts to focus on the opportunities and gaps in financing of infrastructure, options available and challenges. It further attempts to make policy recommendations for development of infrastructural finance in India.*

1. INTRODUCTION

India's economy has become important in the global context due to its nature and size. It has the potential to realize sustained high growth rates. India's infrastructure requirements and the financial resources required to develop the infrastructure are ever increasing for sustaining the economic growth. Quality infrastructure is a key pillar for overall competitiveness. According to Global Competitiveness Report 2013-14, India ranks very low at 85th rank out of 148 countries on the infrastructure pillar, a key for factor-driven economies The country's potential to facilitate new technology development depends on the availability of adequate infrastructure (water, rail, ports, airports and power) and supportive regulatory framework for promoting and channelizing investment in the infrastructure sector through innovative financing mechanism. The impact of infrastructure development on economic growth is well established in literature, and most studies conclude that an improvement in infrastructure leads to faster growth. Roller and Waverman (2001), using data of 21 countries for over 20 years, found a significant positive causal link between telecommunication infrastructure and economic growth. Calderon and Serven (2004) found positive and significant output contributions of transport, telecom and power in a sample of Latin American Countries. Donaldson (2010) in his study found that railroad development reduced trade cost, bolstered trade and increased real income, while Mohammad (2010) suggests that physical infrastructure leads to faster growth in manufacturing. Infrastructure development facilitates economic growth; which in turn demands need for enhanced infrastructure.

Thus, development of adequate infrastructure is necessary to sustain economic growth. However one of the biggest impediments in infrastructure development is financing. The Eleventh Five-Year-Plan envisaged the importance of infrastructure for achieving a sustainable growth of 9 to 10 per cent of GDP over the next decade. The investment in infrastructure is likely to rise from 7.55 per cent of GDP in Eleventh Five-Year-Plan to 9.95 per cent of GDP during Twelfth Five-Year-Plan. Government has targeted to increase the infrastructure investment from USD 514 billion in Eleventh Five-Year-Plan to USD 1024 billion in the Twelfth Five-Year-Plan (Fig. 1). This raises questions about how such a funding can be accomplished. The extent of investment requirement during the next five years requires tapping all possible public as well as private sector sources.

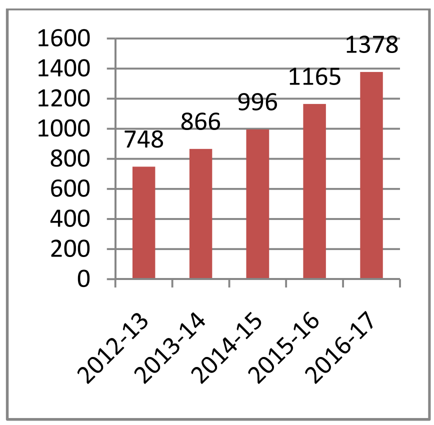

Fig. 1: Projected Investment in Infrastructure Sector during Twelfth Five-Year-Plan (3)

2. THE INFRASTRUCTURE OPPORTUNITIES IN INDIA

India, the second-most populated country in the world with more than 1.24 billion people (24), has emerged as one of the fastest growing economies in recent years. With the projected average yearly compounded growth rate of 9 per cent, India's GDP is likely to be USD 1.4 trillion by 2017 and USD 2.8 trillion by 2027. However, the strong population growth in India has created serious inadequacies in the country's infrastructure sector, and its growing economy is generating enormous pressure for modernization and its expansion. The creation of world-class infrastructure will require huge investments to address the country's deficit in quality and quantity. As per McKinsey and Company study (2010) there will be 68 cities with population of more than 1 million, twenty six more than present by 2030. Hence the demand for infrastructure in India is bound to grow at ever increasing pace. The performance of major core industries and infrastructure sector showed a mixed trend in the financial Year 2013-2014. The major eight core industries namely crude oil, petroleum refinery products, coal, electricity, cement, steel, fertilizers and natural gas together registered a growth of 3.3 per cent during April – December 2012 compared to 4.8 per cent during the same period of the previous year. The infrastructure sector accounted for 26.7 per cent of India's industrial output in the year 2012-13 (5). Further, India needs to spend USD 1.2 trillion by 2030 to meet the projected infrastructure demand of its cities (20).

Among infrastructure sector, freight traffic by railways had been comparatively higher during January -September 2012. Indian Railways is one of the largest rail networks in the world carrying 22 million passengers every day (22). The Indian Government has recognised existing infrastructure gaps in the rail system and plans for large investment over the next five years. Road development is recognised as essential to sustain India's economic growth. India has an extensive road network of 4.2 million km, the second largest in the world (23).

However, expressways/ highways constitute 2 per cent of all roads only and carry 40 per cent of the road traffic. For expansion of national highways beyond 2 per cent of all networks, the road sector needs higher investment for next twenty years (22, 23) India's telephone market, the second largest in the world only after China has grown about 25 per cent per annum over the last five years. Over 4 million users are added every month and are expected to grow at over 150 per cent during next five years (12).

India has 12 major ports, fifth largest electricity generation capacity in the world, and 454 airports and airstrips in India. These sectors expect CAGR of 15.5 per cent, 6.5 per cent, and 20 per cent respectively over the next five years (12). The Twelfth Plan represents a significant funding requirement for investment in infrastructure. The Government had targeted to increase the gross capital formation from 9 per cent of GDP for by the end of Eleventh Five-Year-Plan to 11 per cent at the end of Twelfth Plan (3).

in terms of access to the basic infrastructure, India lags behind most of the developed as well as developing countries.

2.1 Likely Funding Gap.

The draft approach of Twelfth Five-Year-Plan sets very ambitious target for investment in infrastructure. The revival of infrastructure has emerged as one of the top priorities of the GOI. Indian Government planned to invest Rs 5146.4 crore ($1 trillion) in infrastructure including roads, ports, airports and power plant in the Twelfth Plan Period. Due to the large fiscal deficit (4.5 % of GDP in FY 2013) the Government will not be able to meet all the requirements on its own. At least 52 per cent of this will have to come from budgetary allocations with the remaining being funded from debt and equity. Based on the current sources of infrastructure financing (Budgetary Support, Bank deposits and Foreign Capital) and expected trends, it is estimated that the funding gap in the infrastructure sector during the Twelfth Plan Period is likely to be Rs 6.08 lacs crores which is around 21 per cent of the estimated requirement (15). Thus, financing infrastructure poses a big challenge in the coming years. It is estimated that the contribution of private sector participation would increase from 22 per cent in the Tenth Plan to 38 per cent in the Eleventh Plan to about 48 per cent in the Twelfth Plan period (10). Further, to attract private investment more sectors like irrigation, oil & gas storage facilities and telecommunication have been made eligible for viability gap funding under the scheme 'Support to PPP in Infrastructure", one of the key GOI initiatives to encourage private investment through Public Private Participation mechanism.

2.2 Public Private Partnership (PPP)

Huge investment requirement to finance the country's growth cannot be met by Government alone and it needs to be supplemented by private sector. PPP is a long term arrangement of Government in partnership with private sector to provide public utilities and services. In the investment provided by private sector, there is a risk sharing as well as payment to the private party by Government. Payment can be in terms of user charges to be collected by concessionaire or through the annuity payment to be made by Government. Several modes of PPP are now used in various infrastructure projects in Railways, Power, Highways and Ports. The spectrum of projects varies from BOO (Build-Own-Operate) to BOT (Build Operate Transfer)

2.3 Banks/ Financial Institutions

The banking system in India has evolved significantly in the last decade and has supported the growth of infrastructure. Banks' lending to the infrastructure sector grew 100 fold during last decade from 2000 to 2014 (26). As per the Economic Survey 2012-13, the gross deployment of bank credit to major infrastructure sector shows that the rate of growth of bank credit moderated from an average of 35.61 per cent in Q1 of 2011-12 to 13.52 per cent in Q1 of 2012-13. Within infrastructure sector, power had over 50 per cent share in total credit flow to infrastructure. It will not be possible to follow the similar trend in Twelfth Plan due to increasing rate of gross NPAs, which stood at 2.36 per cent of total credit advances in March, 2011 to 3.5 per cent in September, 2012. Banks have internal sectoral ceilings of 12-15 per cent of gross advances for each sector and have a typical asset - liability profile of 3-5 years whereas infrastructure financing is required for 10-15 years. Other Financial Institutions such as IIFCL, ADB, IFC, DFIs are important source of lending to the infrastructure sector. Though ADB and DFIs have limited their funding to the public sector infrastructure projects, a shift is observed in the approach of these institutions in terms of willingness to support PPPs. The IFC, an arm of World Bank focuses on private sector and also provides all the financing services for infrastructure projects with the objective of profit making and risk sharing. IIFCL provides funding to a maximum of 20 per cent of cost of infrastructure project.

2.4 Insurance & Pension Funds

Insurance companies due to their nature of asset liability match and investment policy imperatives can be an active participant for infrastructure development. Insurance company's contribution towards infrastructure is estimated to rise from 4 per cent in Eleventh Five-Year-Plan to 6.14 per cent by the end of Twelfth Plan Period. However, these institutions have many restrictions imposed by Insurance Regulatory and Development Authority. IRDA guidelines stipulate insurance companies to invest 50 per cent in Government securities with 75 per cent of non-Government investments in AAA rated securities, whereas infrastructure projects are generally rated BBB. Similarly, employee provident funds are allowed to invest only up to 10 per cent of the investment in private sector bonds/ securities which have AA+ or above investment-grade ratings. Thus change in investment guidelines for the insurance companies and pensionfunds can release substantial financing that can be made available to infrastructure sector.

2.5 External Commercial Borrowings (ECB)

ECB is a formidable source of finance for infrastructure investment in India. Issue guidelines prescribe sectoral caps, end use restrictions and interest rate cap. However, economic reforms providing increased automatic approval limit to 75 per cent from 50 per cent for infrastructure finance companies is a welcome step (18). RBI and SEBI have recently taken a number of initiatives to meet the growing demand of infrastructure sector such as allowing refinancing of rupee loans through ECBs route in the power sector, reduction in the withholding tax on interest payment on ECB's and introducing a new ECB's scheme for companies in infrastructure sector.

2.6 Corporate bonds

A reasonably well developed bond market could supplement the banking system in meeting the requirement of infrastructure for long term investment. It could provide a stable source of finance. The development of corporate bond market has become more crucial in view of evolution of some of the Development Financial Institutions (DFIs) into universal banks and the need for raising large amount of funds for infrastructure development. Various experts have pointed out a number of causes behind the underdeveloped nature of corporate bond market in India. The highly regulated norms, tedious public issue process and lack of Government will are most common reasons. However, some attempts have been made by GOI to create a vibrant and dynamic corporate bond market in the country. A high level committee on corporate bonds and securitization has already been set up. To provide impetus to the infrastructure sector, GOI allowed raising USD 600 billion tax free bonds in 2012. This included 100 billion for National Highways Authority of India (NHAI), USD 100 billion for Indian Railway Finance Corporation (IRFC), USD 100 billion for India Infrastructure Finance Corporation Ltd (IIFCL), USD 50 billion for Housing and Urban Development Corporation (HUDCO), USD 50 billion for National Housing Bank (NHB), 50 billion for Small Industries Development Bank of India (SIDBI), USD 50 billion for Ports and USD 100 billion for the Power sector. Despite these efforts of GOI, these institutions have not been able to tap the market to raise funds through this route either because these institutions have unutilized surplus cash raised though earlier bond issues or they have not given final shape to the blueprints of the projects. (19).

To promote investment in the infrastructure sector with a view to meet Twelfth Five-Year-Plan target of USD 1024 billion, some financial institutions have been allowed to raise USD 500 billion tax free bonds in 2013-2014. Further, to attract investment in long term infrastructure bonds in foreign currency, the rate of tax on interest paid to non resident investors has been reduced from 20 per cent to 5 percent (20).

2.7 Foreign Direct Investment (FDIs)

Major infrastructure development requires a substantial flood of investment capital. The Indian Government policies seek to encourage investment in infrastructure from foreign investors. Hundred per cent FDI is now permitted under the automatic route for a broad range of sectors including roads, power, ports, airports, housing and construction, manufacturing of telecom equipments. Further, FDI is allowed through the government approval route in some sectors such as existing airports (beyond 74 per cent), telecommunications –basic and cellular services (beyond 49 per cent), atomic material, petroleum and natural gas sector, satellites, and mineral separation of titanium and ores (6).

The total FDI inflows into major infrastructure sectors have registered a growth of 22.18 per cent in the year 2013-2014 in contrast to the year 2012-2013 when the sector exhibit a drop to the extent of 6.09 percent (5). The risk perception of infrastructure projects in India tends to be high due to low country rating, political uncertainties, long gestation period, regulatory complexities and ambiguous land acquisition policies. Foreign investors are unwilling to bear policy and regulatory risk. Thus strategy of attracting FDI into infrastructure will have to deal with these issues directly.

2.8 Private Equity (PE) & Venture Capital (VC)

Infrastructure, which is one of India's biggest challenges, is also becoming one of the largest opportunities for Private Equity and Venture Capital Funds. The power sector attracted most interest from PE/VC investors, increasing to 45 per cent of total PE investment in infrastructure between 2008-2010.Telecom sector was the next biggest opportunity for PE investor, attracting USD 1.9 billion over the same period (9).Venture capital investment in infrastructure sector increased from US$ 208 million in 2004 to US$ 2319 million in 2013(25). Ernst and Young Report – "Second innings: An industry in transition" comments that *the infrastructure sector can be a major swing factor in the overall venture capital activity especially if the government takes appropriate steps, both on policy and administrative level to boost investment activity in the sector.* Further IVCA Bain India Private Equity Report (2011) estimated that about 2000 companies in IT, manufacturing, engineering & construction and healthcare are expected to attract USD 30 billion PE/VC investments during 2010-2015. Venture Capital Investors use a variety of models in infrastructure financing. While most have made standalone investments, some VC firms have syndicated investments at the sectoral level. An example of this approach is the agreement in 2010 between Actis and Tata Realty And Infrastructure Ltd. to form a joint venture to invest USD 2 billion in road projects. IDFC Private Equity preferred a blended model i.e. investment in multipurpose special vehicles to finance infrastructure projects. As per the SEBI guidelines 2007 and Ministry of Finance, GOI, SEBI, registered VC funds can receive tax benefits for infrastructure sector investments (17). However, challenges like limited protection against financing risk, social and political barriers, regulatory complexities and prohibition on purchase of secondary shares still need to be addressed.

3. POLICY ACTIONS / MEASURES FOR CONSIDERATION

a) The domestic bond market needs to be broadened with more players and deepened with more number of instruments for different types of investors and borrowers. It will help channel more funds to the infrastructure sector. GOI has announced a series of policy reforms for development of bond market. Reduction or removal of stamp duty on issuance/trading of infrastructure bonds, development of credit enhancement mechanism for infrastructure Special Purpose Vehicle (SPV) bonds and relaxation in the norms for insurance and pension funds to invest in corporate bond market are some of the suggestions for development of the infrastructure bond market. Banks generally face difficulty in providing long term debt due to asset liability mismatch, volatility in interest rates and tight credit conditions. In order to overcome these constraints, banks and infrastructure–focused Non-Banking Financial Companies (NBFCs) should be allowed to issue tax free infrastructure bonds, include infrastructure lending within the definition of priority sector and exemption from the requirement of cash reserve ratio as well as liquidity ratio for long term borrowing to the infrastructure sector.

b) Many infrastructure projects get delayed or held up due to rigid investment norms, ambiguous environment clearance and land acquisition policies, resulting in high project cost which impacts adversely the viability of projects. Explicit clear cut policies and standardized procedures in environment clearance and land acquisition matters are prerequisite for attracting and ensuring investment in infrastructure projects.

c) Insurance Companies and Pension Funds are constrained by their obligation to invest a substantial portion of their funds in government securities. Insurance Regulatory and Development Authority (IRDA) should relax investment guidelines so that more savings through these important channels get mobilised into infrastructure projects.

d) Recent increases in ECB limits for NBFCs engaged in infrastructure finance to 75% of owned funds will facilitate more investment in the sector. HUDCO and other HFCs can also be considered for ECB permission to encourage availability of funds for housing and urban infrastructure sectors. Prohibition on purchase of secondary shares, convertible instruments and investment in non-banking finance companies for SEBI registered venture capital funds should be removed.

4. CONCLUSION

Although the steps taken to facilitate the flow of funds to infrastructure sector are encouraging, a more concentrated approach is required to fine-tune the accessibility to meet the needs of infrastructure sector. India significantly lags behind other developed and emerging countries in terms of infrastructure development. The demand and supply gap in infrastructure sector is likely to further increase. While the above suggestions are aimed at ensuring adequate flow of funds for infrastructure projects, it is imperative to realise that the policy framework needs to be continuously strengthened. Government needs to actively consider all possible measures to facilitate flow of domestic and foreign funds for the financing of infrastructure sector as a prerequisite to sustained economic growth.

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