Role of Bonds & Capital Markets in Financing Indian Infrastructure

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Distinct from other large emerging market economies which are typically constrained on the demand side, India has been, and may remain for a foreseeable future, an economy constrained on the supply side. The biggest supply constraint is of infrastructure - physical, social and urban.

As per the Global Competitiveness Report (GCR) 2011-12, while India ranks an outstanding 40th in the business sophistication and innovation sub index (ahead of Turkey-58th, Mexico-55th, Chile-42nd and Russia-97th) and boasts of bustling financial markets (21st) and fairly well functioning institutions (69th), it underperforms on some of the basic prerequisites for development such as health and primary education (101st), macroeconomic stability (105th) and infrastructure (89th).

Investment in infrastructure has a central role in the development agenda and is critical for supporting economic growth and poverty reduction. The relationship between quantum of investment and infrastructure is also bi-directional: countries with high growth rates invest more in infrastructure which subsequently feeds back into the growth process.

International Experience

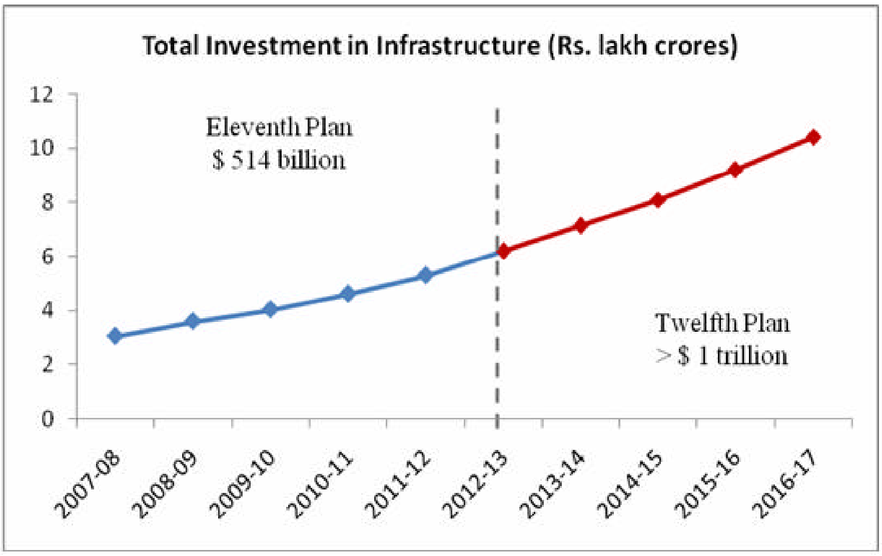
Globally, there exists significant demand-supply gap in availability of infrastructure both in the developed and developing economies. While developing economies require augmentation of infrastructural facilities to support higher growth aspirations, the developed economies need to re-invest to replace or modernise the ageing infrastructure.

According to an IMF Working Paper in Aug'11, the following are some of the critical prerequisites for a robust financial platform capable of providing a strong impetus to economic growth ably supported by infrastructure development.

1. ***Long-term financing for infrastructure investments***
   Chile and Korea have been relatively successful in developing local bond markets to support relatively long-term issuances by infrastructure companies through the country's pension system. In China, public banks have provided long-term financing, while in Brazil, BNDES (*Banco Nacional de Desenvolvimento Econômico e Social*, a publicly-owned development bank) has proved to be a major source of finance.
2. ***Institutional investors' participation in long-term debt markets***
   Without some form of credit enhancement, it is difficult to attract institutional investors to invest in fixed income securities. Only Chile has been successful at encouraging institutional investors to buy bonds issued by fully private companies in the nature of insured infrastructure bonds. In Korea, private infrastructure funds operate with extensive background public guarantees. In Brazil and China, public sector banks finance a great deal of infrastructure projects.
3. ***Cross border funding***
   Multilateral lending agencies have been quite active in a few countries, but encouraging private finance has been more challenging, though prospects have improved over time. In Korea and Brazil, large public sector electricity companies are able to issue debt in international credit markets. Both countries have also been reasonably successful at encouraging foreign companies to invest in publicly guaranteed infrastructure funds (Korea) and in public-private partnerships (Brazil). While in China, foreign participation in infrastructure is minimal; in Chile, there is active participation by multinationals and foreign companies in electricity and road construction sectors.

Overview of the Twelfth Five Year Plan

Inadequate infrastructure was recognised in the Eleventh Five Year Plan as a major constraint for rapid growth. The Twelfth Five Year Plan had, therefore, emphasized the need for massive expansion in investment in infrastructure based on a combination of public and private investment, the latter through various forms of public-private partnerships.



(Source: Mid-term Appraisal of the Eleventh Five Year Plan, Planning Commission)

The Planning Commission has envisioned a target of 9%-9.5% average growth for the Twelfth Five Year Plan. The total investment in infrastructure is estimated to have increased from 5.7% of GDP in the base year of the Eleventh Five Year Plan to around 8% in the last year of the Plan. To achieve the targeted growth rate, infrastructure investment will need to increase to about 10% of GDP by 2016-17. The total investment in infrastructure during the Twelfth Five Year Plan is estimated to be over Rs. 45 lakh crore or over $ 1 trillion (Exchange Rate:$ 1= Rs. 40/-); almost twice the $ 514 billion outlay for the Eleventh Five Year Plan.

Efforts to attract private investment into infrastructure through the PPP route have met with considerable success at the Central as well as State levels. As per the "Investment in Infrastructure during the Eleventh Five Year Plan" report published by Secretariat for Infrastructure, Planning Commission, Government of India in Jan'11, the PPPAC (Public–Private Partnership Appraisal Committee) had approved 192 projects with estimated project cost of Rs. 1,62,550crores by May 2010.

Infrastructure Financing in India

Until the mid-2000s, there was no major demand from the financial system to fund infrastructure investment as it was relatively low (~5% of GDP) and financed largely by budgetary allocations and the internal resources of public sector enterprises engaged in infrastructure. In the Eleventh Five Year Plan, however, infrastructure spending picked up substantially with an important role played by the private sector with greater recourse to the financial system. Most of the debt financing came from banks, non-bank finance companies (NBFCs), external commercial borrowing (ECB), and from insurance companies.

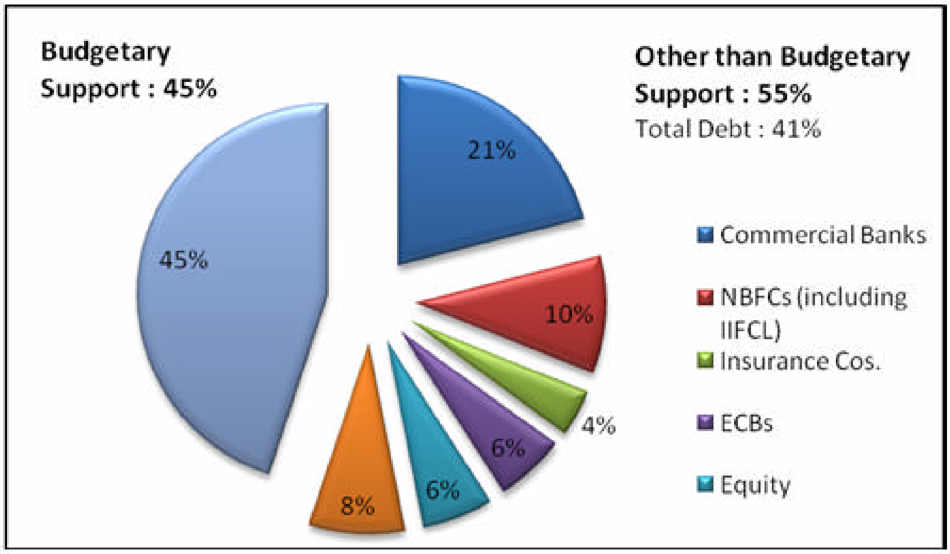
According to the estimates made by the Planning Commission in March 2010, after taking into account the recent trends in different sources of infrastructure financing, the funding gap in the infrastructure sector during the last two years of the Eleventh Five Year Plan is likely to be Rs.1,27,570crores, which is around 18% of the total estimated requirement (Table below). The slowdown in the economy experienced after March 2010 has further aggravated this funding gap in the infrastructure sector during the Eleventh Five Year Plan

(Rs. in Crores)

Source of Funds	Estimated Requirement	Estimated Availability	Funding Gap
Commercial Banks	2,67,480	2,02,027	1,25,685
NBFCs	1,24,699	1,00,651	
Insurance Companies	52,046	42,330	
ECBs	76,984	50,515	
Total Debt Funds	5,21,208	3,95,523	
Equity	1,86,456	1,84,571	1,885
Total	**7,07,664**	**5,80,094**	**1,27,570**

(Source: Planning Commission (2010), Conference on 'Building Infrastructure: Challenges and Opportunities – Financing of Infrastructure', March 2010)

The following pie chart depicts the financing of the first three years of the Eleventh Five Year Plan:



(Source: Planning Commission (2010), Conference on 'Building Infrastructure: Challenges and Opportunities – Financing of Infrastructure', March 2010)

In view of the increased fund requirements as also regulatory limitations, Banks and NBFCs face severe challenges with respect to infrastructure financing due to the following:

1. Asset Liability mismatch
2. Exposure norms, sector caps and group limits
3. Difficulty in Securitisation or selling down existing loans
4. Lack of take-out financing avenues
5. Underdeveloped corporate bond market
6. Non-participation by insurance companies & pension funds beyond AA credit-rated papers)

IIFCL's Role in Infrastructure Financing

With a view to provide long term financing to infrastructure projects, India Infrastructure Finance Corporation (IIFCL) was incorporated in January'06 by the Government of India. Since inception, IIFCL has sanctioned loans to the tune of Rs. 58,568 crores towards 176 projects spread across 24 states. More recently, IIFCL has also extended a credit enhancement offering (wherein it provides partial guarantee for better credit ratings of the project) on a pilot basis to four projects having an outlay of Rs. 2,000 crores. It is also in the process of setting up a $ 1 billion Infrastructure Debt Fund (IDF) to facilitate insurance companies' participation in infrastructure funding.

Infrastructure Debt Funds (IDFs)

IDFs through innovative means of credit enhancement are likely to provide long-term, low-cost debt for infrastructure projects by tapping Insurance and Pension Funds which, despite having access to long term sources of funds, have hitherto played a relatively limited role in financing infrastructure projects. IDFs would typically refinance PPP projects after its construction is completed and it has successfully operated for at least one year. Such projects would considerably reduce the level of risk and consequently enjoy a better credit rating. This structure is a better way of attracting participation from Insurance and Pensions Funds in PPP infrastructure projects at competitive costs and for a longer tenure. Further to attract off-shore funds into IDFs, the Government of India had also reduced the withholding tax on interest payments by the IDFs from 20% to 5%.

By refinancing bank loans of existing projects, the IDFs are expected to take over a fairly large share of existing bank financing which will release an equivalent volume for fresh lending to infrastructure projects. The IDFs will also help accelerate the evolution of a secondary market for bonds which presently is lacking depth.

In March'12, the Central Government launched a $2 billion IDF to catalyse long-term lending to core sectors. The fund, which will be set up jointly by ICICI Bank, Bank of Baroda, Citibank and Life Insurance Corporation of India, has been started with an equity share capital of Rs. 300 crores shared by the four partners. The fund would seek to raise debt capital from domestic and foreign resources in the form of long-term pension, insurance funds and sovereign wealth funds.

Funding Infrastructure through Domestic Savings
While the infrastructure investment targets are ambitious, India's domestic savings rate is also very high and is projected to grow, implying that a fair share of the infrastructure investment needs can be financed through domestic savings. The savings rate, once at 23.7% of GDP during the Ninth Five Year Plan is expected to reach 34% by the end of the Eleventh Five Year Plan and forecasted to exceed 48% by the end of the Twelfth Five Year Plan.

However, even with such high rates, infrastructure investment measures to about one-third of India's financial savings and would entail as much as 21% of the incremental financial savings being directed to infrastructure.

Domestic Savings and Infrastructure Investment Needs

Particulars	FY 13	FY 14	FY 15	FY 16	FY 17
Infrastructure Investment (% of GDP)	9.0%	9.5%	9.9%	10.3%	10.7%
Gross Domestic Savings (% of GDP)	37.8%	40.6%	42.9%	45.5%	48.2%
of which financial savings (% of GDP)	24.8%	27.2%	29.1%	31.1%	33.4%
Incremental Infrastructure Investment (Year on Year)	-	0.5%	0.4%	0.4%	0.4%
Incremental Financial Savings (Year on Year)	-	2.4%	1.9%	2.0%	2.3%
Infrastructure Investment as a percentage of Financial Savings	36%	35%	34%	33%	32%
Percentage share of Incremental Infrastructure investment in Incremental Financial Savings	-	21%	21%	20%	17%

(Source: Mid-Term Appraisal Eleventh Five Year Plan, Reports submitted by Sub-Groups on Household Savings, Private Sector Corporate Savings & Public Sector Savings for 9% p.a. real growth and 5% p.a. inflation scenario)

Appropriate financial intermediations, together with increased depth and liquidity of the bourses could help reverse this inertia.

According to a report by the Working Sub-Group on Infrastructure, the following recommendations have been made to facilitate greater institutional funding in the infrastructure sector:

1. **Supplementing/widening the channels of infrastructure funding**
   a. Regulatory reforms for participation by Insurance companies and Pension Funds.
   b. Reforms which ensure higher ECB & other forms of foreign capital inflows.
2. **Development of financial products and markets**
   a. Reforms that ensure infrastructure funding are not limited by depth and width of the financial market.
   b. Reforms in the area of development of newer financial products for infrastructure financing so as to facilitate wider investor participation.
3. **Creation of a growth enabling eco-system**
   a. Regulatory changes addressing replacement of committed but unutilized debt capital extended by the commercial banks with other forms of financing.
   b. Reforms that lead to development of a frame work that helps reduce the market risk in infrastructure financing and asset liability mismatch of banks.
   c. Reforms that give commercial banks more flexibility to churn their portfolio of Infrastructure assets at shorter tenors by way of increasing asset classes.
   d. Revitalising the market for takeout financing, refinancing and securitisation.

The outlay on infrastructure for the Twelfth Five Year Plan at current prices is Rs.66 lakh crores. Assuming 50% of the investment will be met by budgetary resources, Rs.32.5 lakh crores needs to be met through debt and equity.

The projected funding by various other sources amounts to Rs. 17.89 lakh crores, leaving a funding gap of around Rs. 14.60 lakh crores (in nominal prices). However, various policy and regulatory recommendations have been made that will enable a greater flow of funds into the infrastructure sector. Some of the specific measures have been quantified and are estimated at Rs. 8.72 lakh crores. Implementing these measures would reduce the funding gap to Rs. 5.89 lakh crores. The impact of the measures enumerated above, on availability of non-budgetary funds would be that the funding gap can be reduced by 8.72 lakh crores thereby reducing the funding gap to Rs. 5.89 lakh crores.

Impact of suggested measures on availability of non-budgetary funds (Rs. Crores)

Particulars	Funds Estimated	Additional Funds	Funds estimated (revised)
Commercial Banks	7,43,511	1,45,000	8,88,511
NBFCs	3,84,477	53,300	4,37,777
Insurance	1,50,766	4,52,298	6,03,064
ECBs	54,957	-	54,957
Equity & FDI	4,55,414	2,22,155	6,77,569
Total	**17,89,126**	**8,72,753**	**26,61,878**

Notes:

1. Another Rs. 0.5 – 1 lakh crore can be assumed if Infrastructure debt funds take off.
2. Additional equity has been assumed to be available corresponding to pro-rata (2.93:1) increase in availability of Debt funds.

(Source: Report by the Working Sub-Group on Infrastructure)

Role of Bonds & Capital markets in funding Indian Infrastructure

The importance and suitability of bonds/capital markets in funding the Indian Infrastructure cannot be overemphasised. However, a major constraint in the development of bond market in India, whether sovereign or corporate, has been the lack of a sovereign yield curve, which is deep and liquid at multiple maturities and which can be used to properly price credit, liquidity and maturity risks for all other instruments. Also, poor liquidity in listed and publicly traded bonds is another point, which together with the above point, has thus far constrained development of a vibrant bond market in India and needs adequate attention of all stakeholders.

High domestic savings rate, low penetration of financial assets in India et al presents an interesting but challenging environment to raise capital through capital markets and public issue of bonds. Average capital raising through the bonds between FY 2007-08 and 2011-12was to the tune of Rs. 1.65 lakh crores, of which only Rs. 0.10 lakh crores were raised through public issues; ~94% were mobilized through private placements.

We have tried to critically evaluate the performance of Infrastructure and Tax-free bonds in the below paragraphs:

Infrastructure Bonds with Tax Benefit under section 80CCF of the Income Tax Act

Infrastructure bonds as a tax saving tool was introduced in the 2010-11 Budget as a one-year window for NBFCs with infrastructure finance company status (IFC) with the aim of channelizing domestic savings into the infrastructure sector and was further extended for the year 2011-12. However, owing to the poor investor response, this year's Budget did not extend the deduction further.

During FY 2011-12, against an expectation to mobilize Rs. 13,500 crores, these issues could only manage to garner Rs 2,516 crores which is less than 20% of the total intended amount. This was in sharp contrast to the five Tax free bond Issues which together managed to mobilize over Rs. 6,000 crores from the retail investors. During the same period, the non-Infra NCD Issues from the private sector managed to get subscriptions worth Rs. ~7,500 crores against the total issue size of Rs. 6,150 crores.

The subscription numbers of these 80CCF issues prime facie look poor. However, a deeper analysis shows that for raising the intended amount of Rs 13,500 crores, ~7 mn retail applicants were needed considering that the per applicant tax benefit on these bonds was restricted to Rs 20,000/- only. With the total tax payers' base in India being only ~35 mn with ~90% falling in the lowest tax bracket, the target mobilization appears highly ambitious and not based on facts and figures of retail taxpayers' base in India.

With the average retail application size for the recently concluded tax-free bonds issue at over Rs. 3 lacs and total mobilization of over Rs 6,000 crores from retail investors' category, it appears that a higher investment ceiling for 80CCF Bonds could have changed the dynamics of these bonds as well.

Tax-free Bonds

The Budget 2011-12 had proposed to raise Rs 30,000 crores by issue of Tax-free Bonds. However, NHAI, PFC, IRFC, HUDCO and REC collectively managed to mobilize over Rs. 62,000 crores against a target of Rs. ~28,000 crores through public issues (over 2x subscription levels) while the balance Rs 2,000 crores was raised through private placements.

Despite huge overall success of these issues, the below observations highlight some of the interesting facts emerging from the overall subscription numbers:

1. Retail segment witnessed ~0.75x subscription and raised Rs ~6,000 crores as against allocation size of Rs 8,000 crores.

   It may be noted here that retail investors invested over Rs. 99,000 crores in Equity IPOs over the period of FY10 to FY12 as against allocation size of ~Rs 26,000 crores.

2. The average number of retail applications in these Tax-free bond issues was just over 40,000, far below the number of retail applications in some of the notable Equity IPOs, e.g., Coal India - 16.5 lakh, Reliance Power 47.8 lakh and more recently in MCX - over 4 lakh.

3. 45% of the total amount raised from these Tax-free bond issues was allotted to institutional investors. The issuers obviously had the option of private placements if they were targeting institutional investors as the main source of demand in these issues, as the cost of distribution is significantly lower in private placed issues.

Considering the target of raising Rs 60,000 crores through Tax-free bonds made in the Budget 2012-13, a far more effective distribution channel shall be needed if retail savings is to be channelized in these proposed Tax-free bonds issuances.

Conclusion

While there are many issues surrounding the availability of suitable intermediaries with an adequate amount of risk capital for infrastructure financing in India, there does not appear to be shortage of funds per se within the economy. Indians have shown a great deal of willingness to save and hold their savings in very long-term, low risk-low return assets such as deep-discount bonds, savings linked insurance policies, post-office savings and pension funds.

By introducing innovative products to channelize domestic savings towards financing infrastructure as also supporting regulatory reforms, it is only a matter of time before we see India progress from a developing nation to a developed nation strongly supported by a world-class infrastructure.

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