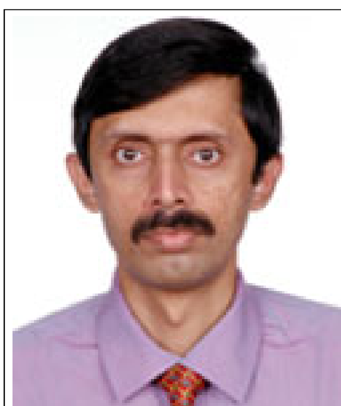
Infrastructure Financing through Capital Markets – Challenges Ahead

Amit Tandon
Managing Director & CEO
Fitch Ratings India Pvt.Ltd.



S.Nandakumar
Sr.Director
Fitch Ratings India Pvt.Ltd.

Infrastructure Finance – The Need

Development of infrastructure is the fulcrum on which India can achieve its aspiration of a 9%+ GDP growth rate. The current economic slowdown has further propelled infrastructure spending to the centre-stage given its counter-cyclical characteristics. Having identified infrastructure as a key driver of economic growth, the Government of India (GoI), has set for itself an ambitious investment target of INR20,562bn (USD514bn) during the 11th five-year plan ending FY12. This represents a significant 2.3 time jump over the estimated investment during the 10th plan. The aim is to increase gross capital formation from 5.75% of GDP to about 9% by the end of the plan period. The table below provides a sectoral break-up of the projected infrastructure investment.

Table 2: Infrastructure Investment in the Eleventh Plan based on Sectoral Analysis (Bottom-up Estimates)

(Rs. crore at 2006-07 prices)

Sectors	Rs. crore	US$ billion @ Rs. 40/$	Sectoral shares (%)
Electricity (incl. NCE)	666,525	166.63	32.42
Roads and bridges	314,152	78.54	15.28
Telecommunications	258,439	64.61	12.57
Railways (incl. MRTS)	261,808	65.45	12.73
Irrigation (incl. WD)	253,301	63.33	12.32
Water supply and sanitation	143,730	35.93	6.99
Ports	87,995	22.00	4.28
Airports	30,968	7.74	1.51
Storage	22,378	5.59	1.09
Gas	16,855	4.21	0.82
Total	**2,056,150**	**514.04**	**100**

Given the burgeoning fiscal deficit and the competing demand on the government's scarce resources, it is no surprise that the private sector has been expected to play an expanded role in meeting the above goals. It is estimated to contribute about 30% of the planned investment – up from the c.20% in the previous plan period. The total requirement of debt by the public and private sectors is likely to be INR9,880bn or USD 247bn.

India's Capital Markets – Historical Perspective

The massive funding requirement that is necessary for fuelling the infrastructure growth engine points to the pivotal role that India's capital markets have to play if even a part of the above targets have to be met.

Before we delve into analyzing the challenges entailed in the process, it would be useful to examine in the historical context that will help us better appreciate the magnitude of the task ahead.

Indian markets comparison with other major markets

Particulars	USA	UK	Japan	Germany	Singapore	Hongkong	China	India
No. of listed Companies	5,130	2,588	3,844	658	472	1,029	1,530	4,887*
Market Capitalisation (US $ bn.)	19,947	3,859	4,453	2,106	353	1,163	6,226	1,819
Market Capitalisation Ratio (%)	149.01	157.13	90.25	69.43	274.41	583.89	237.56	200.09
Turnover (US $ bn.)	42,613	10,324	6,497	3,363	384	917	7,792	1,108
Turnover Ratio (%)	216.5	270.1	141.6	179.7	122.0	89.1	180.1	84.0

*Listed companies in India pertains to BSE.
Market Capitalisation Ratio is computed as a percentage of GNI 2006

Impressive as this ranking may seem, have Indian capital markets really helped large scale new capital formation? Let us look closely at the following two tables:-

Issues	2006-07 (Rs. mn)	2007-08 (Rs. mn)	2006-07 (US $ mn)	2007-08 (US $ mn)
Corporate Securities	**1,942,560**	**3,228,310**	**44,564**	**80,768**
Domestic Issues	1,772,510	2,962,750	40,663	74,124
Public Issues	313,850	837,070	7,200	20,942
Non-Govt. Public Companies	306,030	636,380	7,021	15,921
PSU Bonds	–	–	–	–
Govt. Companies	–	25,160	–	629
Banks & Fis	7,820	175,530	179	4,392
Private Placement	1,458,660	2,125,680	33,463	53,182
Euro Issues	170,050	265,560	3,901	6,644
Government Securities	**2,001,980**	**2,559,840**	**45,928**	**64,044**
Central Government	1,793,730	1,882,050	41,150	47,087
State Governments	208,250	677,790	4,777	16,957
Total	**3,944,540**	**5,788,150**	**90,492**	**144,812**

Source: RBI Annual Report 2007-08

Issuer / Securities	Amount raised form Primary Market		Turnover in Secondary Market		Amount raised form Primary Market		Turnover in Secondary Market	
	2006-07 (Rs. mn.)	2007-08 (Rs. mn.)	2006-07 (Rs. mn.)	2007-08 (Rs. mn.)	2006-07 (US $ mn.)	2007-08 (US $ mn.)	2006-07 (US $ mn.)	2007-08 (US $ mn.)
Government	2,001,980	2,559,840	35,833,370*	56,273,470*	45,928	64,044	822,055	1,407,893
Corporate/Non Government	923,552	1,162,661	140,938	222,273	21,187	29,088	3,233	5,561
Total	**2,925,532**	**3,722,501**	**35,974,308**	**56,495,743**	**67,115**	**93,132**	**825,288**	**1,413,454**

* includes NDS-OM turnover
Source : Prime Database, RBI and NSE

Key Trends

- An aggregate of INR 5,788bn (USD145bn) were raised by the government and corporate sector during FY08, up 47% over the previous year.
- Private placement accounted for 71.75% of the domestic resource mobilization by the corporate sector.
- Indian companies have raised about INR266bn (USD6.6mn) during FY08 through American Depository Receipts (ADRs)/Global Depository Receipts (GDRs), an increase of 56.17% over FY07.
- Of the total resources mobilized through the primary markets, the share of resources raised by the government decreased from 51 % in FY07 to 42% in FY08.
- During FY08, the government and corporate sector collectively mobilized INR3,723bn (USD93bn) from the primary debt market, a rise of 27.24% as compared to the preceding year.
- About 68.77% of the resources were raised by the government (Central and State Governments), while the balance amount was mobilized by the corporate sector through public and private placement issues.

Viewed against the quantum of funds required, using the capital market route to raise new financing for meeting infrastructure investment has not been a favoured option. Anecdotally, Fitch estimates that the percentage of new capital raised from primary markets purely for infrastructure investment would be in the low single digits; the amount raised as debt - bonds / debentures – would be a miniscule percentage. Consequently, dependence on capital markets for financing infrastructure investment will indeed be a huge challenge going forward.

Issues Involved

Given that most infrastructure projects earn revenues in rupee terms, it does not make much sense to over-rely on foreign capital. The domestic markets should ideally be the bridge between long-term capital seeking stable returns and projects that need large doses of capital with long tenors. Infrastructure projects continue to rely heavily on debt financing mainly from bank syndicates (with almost negligible participation from the bond markets) and to a lesser extent, on sponsor equity. One study estimated bank lending to the corporate sector to constitute six times the resources mobilized through bonds! This overwhelming dependence on the domestic banking sector for securing project loans brings in its wake certain key problems:-

- Excessive leverage (in many cases, financing structures use a debt/equity mix as high as 4:1.) can be harmful, particularly when the economic cycle turns and revenue forecasts under-achieve during the concession period in what are essentially long-term infrastructure assets. This can place a strain on debt servicing, and a few bad loans can discourage future lending to the sector.
- While banks have begun extending loans with tenors beyond 12-15 years, projects could be saddled with refinancing risks while exposing the banks to potential asset/liability mismatches.

Coupled with regulatory and prudential restrictions such as (banks') capital-linked and project / sectoral ceilings, there is an obvious limitation on the banks' ability to meet all of the new demand for new project loans. Therefore, in my view, the hitherto untapped potential of the bond markets presents the ideal solution to increasing the available pool of capital, securing truly long-term financing and minimizing the cost of debt. The constraints in the blooming of a full-fledged bond market that can actively support infrastructure projects can be analysed under two broad heads:

- Constraints emanating from the projects' side that can affect demand for finance; and
- Supply-side constraints that limit availability of funds

Issues Affecting Demand

For investors to continue to remain enthusiastic about investing large sums into the Indian infrastructure engine, it is vital that a steady pipeline of bankable projects is assured. Lack of clarity in the regulatory framework and policy guidelines, bureaucratic delays, limitations on the capacity of private sector developers to build and maintain new projects and the inherent risks associated with developing and financing infrastructure projects have all contributed to this situation.

In a report titled: "Infrastructure Finance in India – Lessons from the Front Line", published in November 2008, Fitch Ratings highlighted several factors that accentuate the risk profile of new project debt although it noted that many of the rated projects have favourable economic profiles, implying that they also have some debt carrying capacity.

Projects are still subject to construction and completion risk and these will remain until requirements for additional capital expenditures as a condition for opening, government approvals for the commencement of tolling, possible project cost escalations, and the design versus the actual performance level of the facilities are eliminated as potential issues. India has developed a number of very qualified project contractors and sponsors, which reduces project delivery as a credit concern; however, in the current environment, with inflated costs for steel, energy, labour and Engineering, Procurement and Construction (EPC) contractors, the higher rated projects will build in sufficient contingencies and risk sharing provisions for construction risk. According to information furnished by the government to parliament recently, out of 909 infrastructure projects worth INR4,185.7bn, 346 projects are running behind schedule; it is not clear if these statistics represent only government-funded projects or public-private partnership (PPP) projects or both. The cost overrun in these delayed projects is estimated to be around INR246.9bn, which is 13.3% of the approved cost.

Many of the projects have a high level of debt relative to the strength or stability of their cash flows. There are a number of factors that lead to this conclusion: one is the medium term nature of available debt in India, which lends itself to somewhat aggressive repayment schedules given the debt service coverage projected by most of the project feasibility studies; secondly, projects have an over-reliance on senior debt. While equity contributions reduce the need for senior debt and strengthen cash flow coverage, the mix of debt and equity has not always been consistent with the credit profile of individual projects.

Project cash flows are susceptible to a variety of risks, including construction delays (as discussed above), fluctuations in interest rates and economic cycles, as well as the political risk of annual rate increases (notwithstanding inflation-linked increases woven into standard concession agreements).

Loan maturities are lengthening, but amortisation periods are still fairly aggressive in comparison to expected project cash flows. Infrastructure project loans in India have been getting longer, but are still considered as medium term by international standards. Most of the rated projects have nine to 14 years of operations over which to amortise their project loans, which is aggressive relative to projected cash flow volatility. Very few have a principal free grace period for usage and revenue to ramp-up and instead, begin debt amortisation in the first year of operations.

Most of the loans have "covenant light" structures, although the extent of lender protection varies to some extent by asset class. These covenant light structures may be the early adaptation of corporate bank lending technology into the infrastructure project arena, but they may also reflect a tendency towards relationship banking. Nevertheless, these structures are a credit concern, since they do not promote the creation and maintenance of sufficient internal liquidity to offset interest rate, ramp-up, regulatory and other project risks.

The pricing of project risks has varied over time, and depends more on the availability of capital and the nature of sponsor-bank relationships than on a broader and more rigorous evaluation of project fundamentals.

As the size, scale and complexity of infrastructure projects increases manifold, the technical and managerial capacity of a small number of large, qualified infrastructure firms (that India presently has) with the wherewithal to prudently conceptualise and successfully execute projects will be severely tested or may even be saturated leading to a situation where either new projects find no takers in the private sector or the marginal players get tempted to join the bandwagon, thus magnifying project risk.

Issues Affecting Supply

Banks and Insurance companies are presently the major investors in India's bond markets and each of these class of investors are hampered by regulatory restrictions that govern their investment decisions. For example, the investment guidelines of the Insurance Regulatory and Development Authority (IRDA) stipulate that any investment other than in secured form will get categorized as "other than approved investment" (OTAI) which has a 15% aggregate investment ceiling. Likewise, any investment that is rated below 'A+' or financial assistance that is in "loan" form (other than loans secured by way of the mortgage of property) is classified as OTAI. Further, the single-borrower exposure limit or aggregate investment limit is defined as 20% of "capital employed", where capital employed includes subscribed share capital + free reserves + bonds and debentures. Empirical evidence suggests that the insurance companies generally prefer securities in the AA category which ensures some cushion on the downside for credit quality deterioration.

While the IRDA mandates that life insurance companies must invest a minimum of 15% of their funds in infrastructure and social sectors in respect of traditional insurance policies such as endowment, whole life or term insurance, these guidelines do not apply to unit-linked insurance policies (ULIPs), which are currently the flavour of the season.

Commercial banks, governed by the RBI's asset and liability management (ALM) requirements, prefer to lend over the short to medium term rather than long tenor bonds, as their resources/liabilities are primarily short to medium term in nature. Further, the mark-to-market requirements create a sort of regulatory asymmetry in favour of loans to the detriment of investment in bonds.

Way Forward

The crux of the issue seems to lie in creating facilitating conditions for a rapid growth of India's corporate bond market by addressing the above constraints as well as others that will in turn contribute to at least partially channelize savings into meeting infrastructure funding requirements. In this connection, a first step could be the speedy implementation of the recommendations of two high power committees viz., the Patil Committee and the Deepak Parekh Committee, particularly insofar as they pertain to galvanising India's relatively dormant bond markets. Some of the recommendations are worth repeating just to complete the discussion:

- Removal of TDS on corporate bonds in line with GOI securities.
- Reduction and uniformity in stamp duty on issuance of debt instruments and on securitization transactions.
- Allowing repo transactions on corporate bonds in inter-bank repo market through a specialized clearing and settlement platform.

From a supply side, there exists an argument for regulatory relaxation of investment guidelines for key classes of investors. For example, the IRDA can relax the minimum rating required for investment in debt instruments of 'infrastructure' companies to bare investment grade on the national scale. Likewise, the threshold for classifying an asset as NPA can be increased from the current 90 days to 180 days for investments in infrastructure projects. Banks could be permitted to classify their investments in debt instruments floated by infrastructure companies under the held-to-maturity category, thus eliminating the regulatory asymmetry discussed earlier. Can investments in infrastructure projects be treated as "priority sector" lending, providing banks added incentive to expand exposure to this sector?

In this connection, perhaps a leaf can be taken out of the recently issued investment guidelines by the Pension Fund Regulatory and Development Authority under the New Pension System, where for Asset class C (credit risk bearing fixed income instruments) that includes "…rated municipal bodies/infrastructure bonds…", authorized investments include: "…(iii) Debt securities with maturity of not less than three years tenure issued by Bodies Corporate including scheduled commercial banks and public financial institutions [as defined in Section 4 (A) of the Companies Act]. Provided that at least 75% of the investment in this category is made in instruments having an investment grade rating from at least one credit rating agency… (v) Credit Rated Municipal Bonds/Infrastructure Bonds."

Some additional ideas that can have a salutary impact in strengthening institutional mechanisms aimed at increasing investor confidence in capital market instruments floated by infrastructure projects include the following:-

- Since private capital is governed predominantly by rate of return considerations while most infrastructure assets are invariably public goods, the importance of a strong, independent regulatory framework that ensures transparency and fairness for all stakeholders concerned cannot be over-emphasised.
- Mandatory credit assessments as a pre-condition to achieving financial closure can act as a catalyst in ensuring expeditious supply of projects by allowing all of the interested stakeholders (government agencies, project sponsors, investment bankers, potential investors) to get a holistic view of each project's risks and helping the government define good risk allocation frameworks, and identify best-fit private sector sponsors. This should help allay some of the demand side constraints listed above.