



# **Session 7: FDIs and PPPs: Experience in India – Domestic Bond Market: *Scope and Challenges for Infrastructure, Experience with Subnational and Utility Issues***

**Strengthening Private Sector Participation and Investment in Physical Infrastructure, ADBI**

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## Historical Perspective

- > List of Issuers in the last 4-5 years
  - ***State-owned power utilites***
    - > Andhra Pradesh Power Generation Corporation Ltd.
    - > Chhattisgarh Electricity Company Limited
    - > Meghalaya State Electricity Board
    - > Transmission Corporation of Andhra Pradesh
    - > Tamil Nadu Electricity Board
    - > Rajasthan Rajya Vidyut Prasaran Nigam
  - ***State-owned irrigation companies***
    - > Krishna Bhagya Jala Nigam
    - > Maharashtra Patbandhare Vitty Company
    - > Karnataka Neeravari Nigam
    - > Cauvery Neeravari Nigam Ltd



## Historical Perspective

- > **List of Issuers in the last 4-5 years**
  - ***State-owned water supply utilites***
    - > Maharashtra Jeevan Pradhikaran (not a utility in the strictest sense of the term)
    - > Chennai Metropolitan Water Supply and Sewerage Board
    - > Tamil Nadu Water & Sanitation Pooled Fund Trust
    - > Karnataka Water & Sanitation pooled Fund Trust
  - ***Other state-owned entities***
    - > Maharashtra State Road Development Corporation
    - > West Bengal Infrastructure Development Finance Corporation Limited
    - > Andhra Pradesh State Financial Corporation
    - > Punjab Infrastructure Development Board
    - > India Infrastructure Finance Company
    - > Karnataka State Industrial Investment & Development Corporation
    - > Andhra Pradesh Power Finance Corporation
    - > Indian Railway Finance Corporation
    - > Karnataka State Financial Corporation
    - > Kerala Transport Development Finance Corporation
    - > Konkan Railway



## Historical Perspective

### – *Municipal Corporations*

- > Chennai
- > Nagpur
- > Ahmedabad
- > Visakhapatnam
- > Nahsik

### – *Private sector issuers*

- > Jaiprakash Hydro-Power Ltd
- > GMR Infrastructure
- > Lanco Industries
- > Viramgam Mahesana Project Limited
- > South West Port Limited

– Public offerings have been mainly from Irrigation corporations in the states of Karnataka, Gujarat and Maharashtra which tapped the public markets in the 90s

- > Sardar Sarovar Nigam Ltd
- > Krishna Bhagya Jala Nigam Ltd
- > Maharashtra Krishna Valley Development Corporation



## Utility Bond Issue – MeSEB Case Study

- > MeSEB is owned by the Government of Meghalaya, the north-eastern Indian state
  - Responsible for generation, transmission and distribution of electricity
  - 185 MW installed capacity; FY07 revenue of INR2.3bn and Net Income of (-864.1mn)
- > To part finance a 84 MW hydro electric power project, MeSEB approached the bond markets in Oct 07
  - INR 1.2 bn raised in just two days
  - Unsecured, Non-Convertible, Redeemable Bonds
  - 10-year paper with coupon of 9.95%, payable half-yearly; 9.90% coupon for 7-year put/call option
  - Bonds rated BBB+(ind)(SO) by Fitch Ratings
  - Government of Meghalaya (GoMe) unconditionally & irrevocably guaranteed debt service
  - Canara Bank (AAA(ind)) bond trustees



## Utility Bond Issue – MeSEB Case Study

- > In order to ensure timely debt service, a structured payment mechanism overseen by the trustees through a tripartite agreement with MeSEB and GoMe has been stipulated
  - 45 days prior to an upcoming debt service (T), MeSEB transfers requisite funds to a Trust & Retention Account (TRA) or places them in a Fixed Deposit with a AA(ind) rated bank liened to the trustee.
  - At T-15, funds are transferred from the FD to the TRA; and
  - cheques despatched to investors at T-7
  - If MeSEB is unable to make the necessary allocation of funds, trustee informs GoMe at T-40; the GoMe can make good the shortfall; else, the guarantee is invoked at T-15 and the government is required to pay the shortfall at T-7



## Impediments to the development of a strong domestic bond market in India for infrastructure projects

- > Lack of a steady pipeline / supply of strong, bankable projects
- > Issuing entities not fully acclimatised to the rigours of bond market discipline
  - timely payment of principal and interest
  - Adherence to transaction structures
  - Role and functions of trustees
- > ‘Easy’ availability of commercial bank loans
  - Relationship banking imparts a feeling of comfort among issuers
  - Flexible financing terms
- > Cumbersome primary issuance guidelines and high transaction costs
- > Direct lending by multilaterals such as ADB, JBIC, etc. with an express or implied sovereign guarantee
- > Perceived macro risks (political, economic, regulatory and environmental) traditionally associated with infrastructure projects; accentuated in certain sectors



## **Impediments to the development of a strong bond market in India for infrastructure projects:- Supply-side constraints**

Partly driven by regulation and partly by internal investment guidelines, many institutional investors do not invest in bonds rated below an “A+”

- > Ceiling on foreign investment in debt instruments – presently a very low USD 1.5 bn
- > Insurance Companies:
  - Investment guidelines of the Insurance Regulatory and Development Authority (IRDA)
    - > Financial assistance has to be “secured” form; otherwise it attracts the risk of being classified in the “other than approved investment” (OTAI) category of investments.
    - > Any investment that is rated below “A+” or the financial assistance that is in “loans” form (other than loans which are secured by way of mortgage of property) is categorised as “Other than Approved Investment”(OTAI), which may not exceed 15% of aggregate financing / investment and is subject to exposure and prudential norms.



## **Impediments to the development of a strong bond market in India for infrastructure projects:- Supply-side constraints**

- > Insurance Companies:
  - Nature of current inflows for insurance companies
    - > 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.
    - > However, a significantly fast increasing number of investors are now preferring the unit-linked insurance policies (ULIPs), which are short-term orientated and have no mandatory requirement of investment in the infrastructure sector.
    - > In the case of ULIPs, insurance companies are required to invest according to a pattern of investments / scheme selected by the policyholders, which usually is weighted in favour of equity.

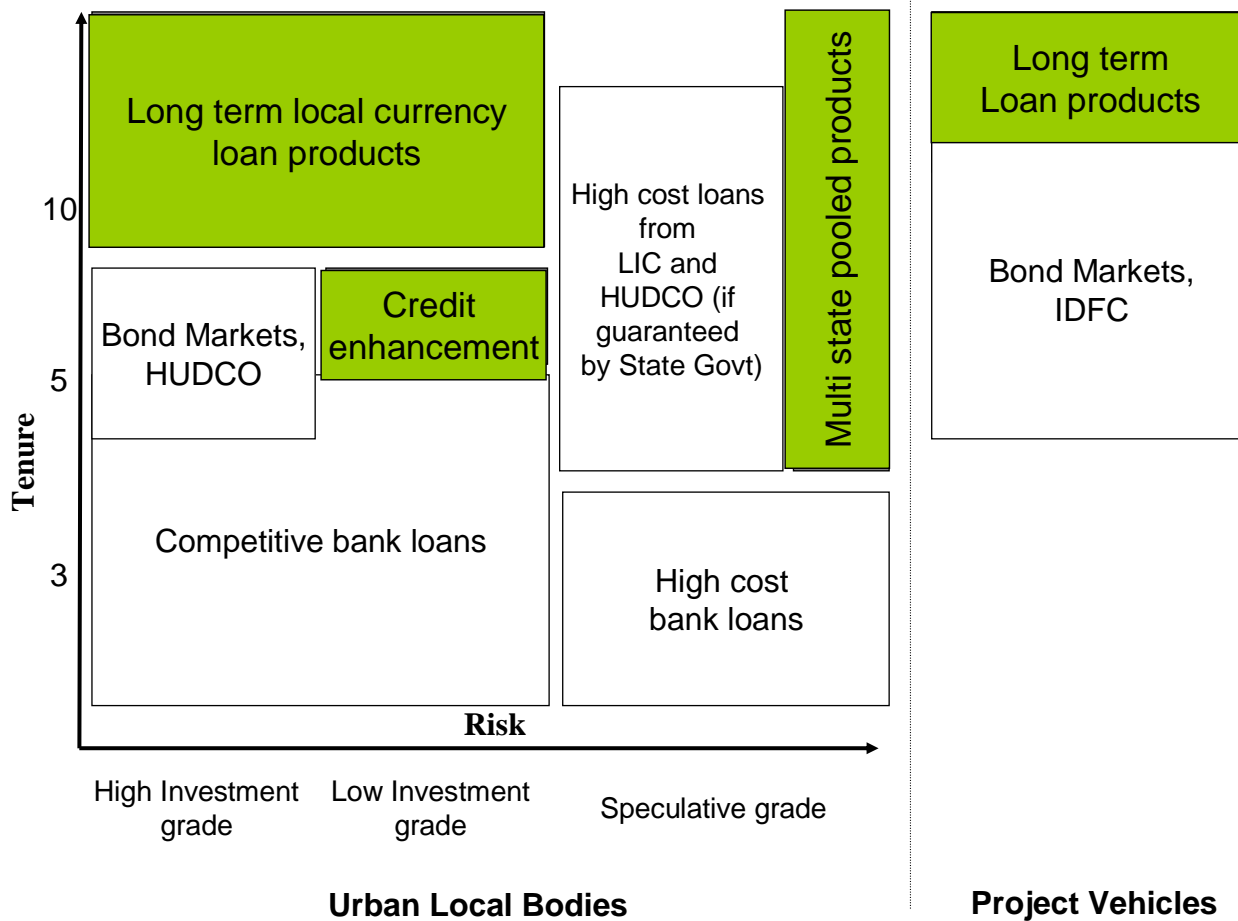


## **Impediments to the development of a strong bond market in India for infrastructure projects:- Supply-side constraints**

- > Banks
  - Asset-Liability management stipulations – most deposits are short-to-medium term while infrastructure projects require long-term funding
  - “mark-to-market” implications in bond investments
  - lack of: (a) transparency in the awarding of projects, (b) strong oversight over project execution, and (c) monitoring of cash flows
  - Dearth of quality projects with escrowable cash flows
  
- > Absence of pension funds and dedicated infrastructure funds



## Gaps in the System





## **Developing a vibrant bond market in India for infrastructure projects:- Framework**

- > Addressing demand-side constraints
- > Addressing supply-side constraints
- > Evolving alternative instruments and structures



## Developing a vibrant bond market in India for infrastructure projects:- Addressing demand-side constraints

- > Increasing the pace at which infrastructure projects are bid out particularly the ones on the PPP model
- > Creating a strong regulatory framework
  - Can we replicate the early successes achieved in the roads and telecom sectors?
- > Enforceability of security at the utility level – legal amendment required?
- > Corporate Governance quality in the utilities
  - Strong credit culture; use of ratings / gradings
- > Ability to levy appropriate user charges
- > Mechanisms for handling performance risk (e.g. the water treatment plant does not purify water) and off-take risk (not enough consumers to use and pay for the water)
  - Appropriate pre-qualification criteria; payment linked to operating performance and service levels
  - Building flexibility in concession agreements



## Developing a vibrant bond market in India for infrastructure projects:- Addressing supply-side constraints

- > Implementation of the Patil Committee recommendations for the development of the corporate bond market
  - “The recommendations submitted by the various committees appointed by the government to review interest rates on small savings instruments need to be implemented to ensure that interest rates paid on small savings instruments are aligned with market rates. The resultant fiscal savings could be used to provide tax benefits for municipal bonds and for credit enhancements to bonds issued by SPVs for infrastructure development.”
- > Providing central government guarantees for municipal and infrastructure finance is neither efficient nor fiscally possible; however, fiscal incentives in the initial years may almost be a necessary ‘evil’ to kick-start institutional investors to look at the sector seriously



## **Developing a vibrant bond market in India for infrastructure projects:- Addressing supply-side constraints**

- > Permit insurance companies to invest even in BBB rated instruments
- > Make investment in infrastructure bonds eligible for qualification as priority sector lending by Banks
- > ALM compliance by Banks to be determined by the interest rate re-set clause
- > Allow banks to classify their infrastructure bond investments under the “hold-to-maturity” category thus obviating the “mark-to-market” requirements



## Developing a vibrant bond market in India for infrastructure projects:- Innovative Instruments & Structures

- > Pooled finance / infrastructure banks
- > Revenue bonds
  - > These are secured by user fees or dedicated taxes. Revenue bonds can include issuances for a wide range of investments including:
    - > utilities (water, waste water);
    - > transport (mass transit).
- > Tax- supported credit enhancement programmes
- > Securitization
- > Bond Insurance – Monolines; credit wraps



## Developing a vibrant bond market in India for infrastructure projects:- Innovative Instruments & Structures

### > GARVEE Bonds

- Grant anticipation revenue vehicle (GARVEE) bonds, popular in the US, essentially allow states to issue bonds whose servicing is secured by federal transport funds that are primarily derived from motor fuel taxes.
- In India, we have the fuel cess where 50% of the special cess on high-speed diesel (HSD) accruing to the Central Road Fund (CRF) is allocated to states to implement the Pradhan Mantri Gram Sadak Yojana (PMGSY), while 30% of the sum of the remaining 50% of the HSD cess plus the entire cess on petrol is earmarked for state roads. Since a pattern of allocations from CRF to the states has been established over the last five years, it should be possible to make a fairly rigorous forecast of these flows over the next few years. These cess allocations can partly be used to leverage capital market funds for accelerating road development projects.

### > Specialized Credit Intermediates

- INCA in S.Africa



# The Pooled Finance – State Revolving Fund (SRF) – Model

Most U.S. states have independent State Revolving Funds or Infrastructure Banks

A pooled financed vehicle can be either publicly or privately owned and operated, but it needs its own statutory authority

- > What are the advantages of pooled finance?
  - Default risk is greatly lowered through portfolio approach (liquidity)
  - Debt structure of the infrastructure bank can be adjusted to accommodate performance of underlying loan cash flows
  - Longer term and lower cost financing is made available to meet municipal and infrastructure project needs
  - This creates a better match between the debt and the assets being financed
  - This adds diversity and depth to the domestic debt market
  - In a revolving fund structure, loan repayments are reapplied to make new loans (initial capital is continuously recycled)



# The Pooled Finance – State Revolving Fund Model

## Building Layers of Credit Enhancement

- > Initial project loan paid by user fees or taxes
- > Portfolio cash flow supplemented by a debt service reserve
- > Reserve supplemented by state aid intercepts
- > Intercepts supplemented by external partial risk guarantee or line of credit from multi-lateral agency or government performance bond

## Loan Performance Over Time

- > Pace of new loans can also be affected by underlying loan performance (such as in economic cycles, etc.)
- > Participation in the pool can have restrictions on adopting management practices, financial transparency rules, etc.
- > These restrictions strengthen the quality of the loan pool over time
- > Stronger municipalities / projects become independent issuers



## Understanding the Success of the Loan Pool Structure

- > Combination of program equity with pool of loans
- > Reduced bond default risk caused by single borrower loan default
- > Program resources to make subsidized loans spread across larger group of beneficiaries than if funded with grant resources
- > Individual borrower access to capital market at lower costs than issuing stand-alone bonds



## Pooled Finance in India

### Water & Sanitation Pooled Fund (WSPF), Tamil Nadu

Sold INR 304mn long term bond program in December 2002; 15 year maturity, 9.20% coupon with put/call at 10 yr)

- > Fitch rated AA(ind)(so)/stable
- > India's first pooled refinancing of the outstanding loans of 13 ULBs sold in the domestic debt capital market.
- > Rating based on pooled credit risk rather than individual credit risk of ULB borrowers
- > Credit enhancement provided by state aid intercept, cash collateral and a partial guarantee from USAID
- > ULBs' interest costs were lowered by being able to refinance on a pooled basis with a longer maturity



## Pooled Finance in India - WSPF

Sl. No.	Initial Subscribers	No. of Bonds allotted
1.	Karnataka Bank Ltd.	2000
2.	ICICI Bank Ltd.	1000
3.	Gujarat Industries Power Co., Ltd, Provident Fund Trust	11
4.	Metlife India Employees Provident Fund Trust	5
5.	City Union Bank Ltd.,	25

WSPF bonds have created quite an active secondary market. The bonds have been sold by the original holders to the following entities:

1. The Karnataka Bank Ltd
2. The Tata Engineering And Locomotive Company Ltd Superannuation Fund
3. The Tata Engineering And Locomotive Company Ltd Provident Fund
4. Credit Capital Investment Trust Company Ltd Trustees Taurus Mutual Fund A/C Libra Bond Fund
5. The Tata Engineering And Locomotive Co. Ltd Employees Pension Fund
6. The Baghat Urban Co Operative Bank Limited
7. The Indian Hotels Co. Ltd Employees Provident Fund
8. Trust Capital Services (India) Pvt. Ltd.
9. Digital Globalsoft Limited Provident Fund Trust
10. Staff Provident Fund of Nicholas Piramal India Ltd
11. City Union Bank Limited - Mount Branch
12. Gujarat Industries Power Co. Ltd. Provident Fund Trust
13. Metlife India Employees Provident Fund Trust
14. Advanta India Management Staff Provident Fund



# India's Pooled Finance Development Fund (PFDF) Scheme

## Guidelines announced by MoUD, GoI in November 2006

### Objectives

- > Facilitate ULBs to access the capital and financial markets for investment in essential municipal infrastructure;
- > Facilitate development of bankable urban infrastructure projects;
- > Reduce the cost of borrowing to ULBs with appropriate credit enhancement measures and through restructuring of existing costly debts; and
- > Facilitate the development of a municipal bond market



# India's Pooled Finance Development Fund (PFDF) Scheme

## Features

- > Each state expected to either designate an existing state entity or create a new entity by statutory authority for execution of the scheme
- > SPFEs will issue debt securities on behalf of ULBs without state guarantees
- > States may provide credit enhancements to SPFEs, but no direct state guarantees
- > SPFEs will work with the ULBs in selecting projects for financing based on viability and priority
- > SPFEs will need to obtain credit ratings for the issuance of debt on behalf of the ULBs



# India's Pooled Finance Development Fund (PFDF) Scheme

## Credit Rating – Key Factors

- > The number and composition of ULBs in the pool
- > Type of projects and attendant risks
- > Credit enhanced by:
  - Escrow of project revenues (user charges)
  - State devolutions' intercept
  - Credit rating enhancement Fund (CREF). 10% of the issue or 50% of the CREF, whichever is lower, will be Gol's one time contribution; balance from state governments

**Fitch has recently assigned an in-principle or expected rating of AA(ind) to WSPF's (comprising seven ULBs in Tamil Nadu) proposed INR 450 mn pooled finance issuance – the first under the PFDF scheme**



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