

Credit Instruments – Beyond Vanilla Lending (For Infrastructure Financing)

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The Challenges in Infrastructure and Project Financing

Characteristics

- Large lumpy investments :
 - Peaking during construction and refurbishment
- Substantial gestation period
- A longer operational life span
- Once stabilized, witness in-elastic demand

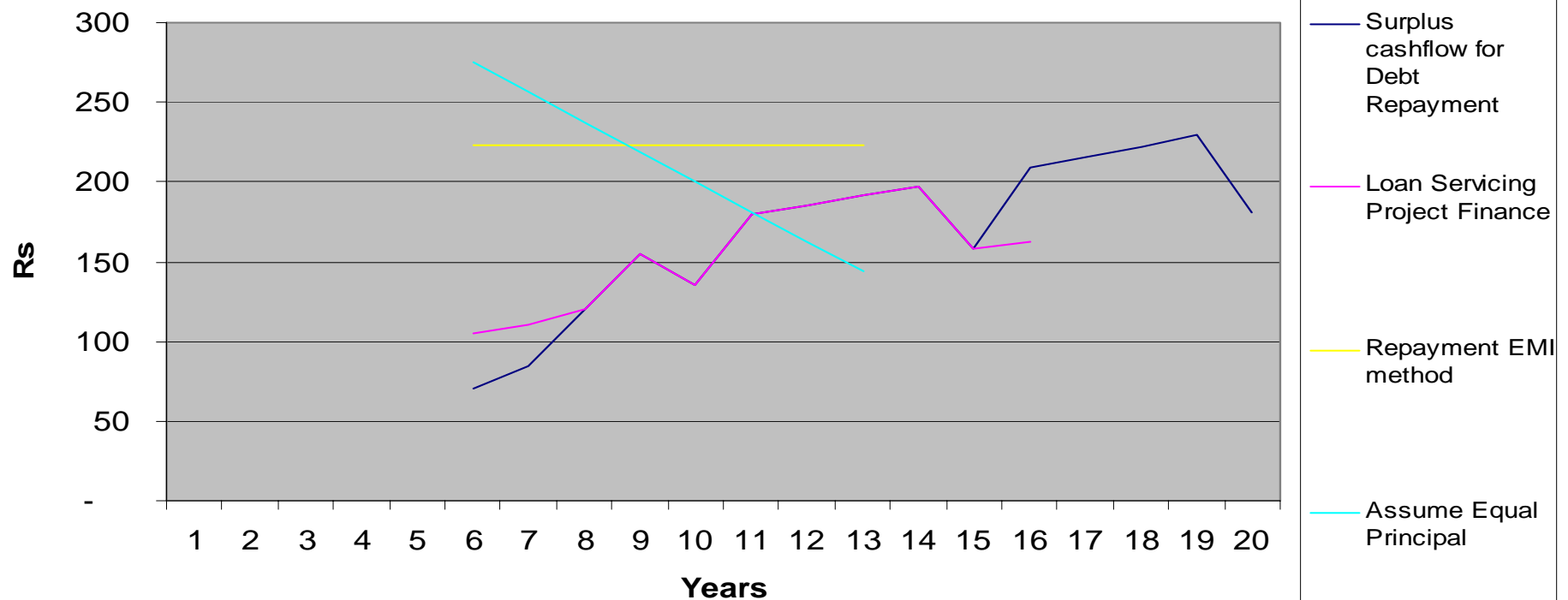
Challenges

- Intense project preparation imperative to to establishing cost efficient facilities
- Complex resource syndication process
- Asset liability issues
- Managing and optimizing cost of funds
- Establishing robust risk mitigation framework
- Undertaking thorough project development

Need for Innovation

- Traditional sources of funding were not flexible to cater to
 - The large quantum of capital required in infrastructure for increasing service levels
 - Funding of long tenor, large gestation projects, hitherto executed only in through the public domain
- Policy initiatives helped... only partly
 - Permitting FDI across all infrastructure verticals
 - Fiscal benefits
 - Tax exemption for infrastructure projects
 - Tax benefits for institutional and retail investors
 - Bankable contractual frameworks, concession agreements, etc
 - Relaxation of IPO guidelines for infrastructure companies
 - Establishment of Independent Regulators provides comfort

Cashflows from a Typical Infrastructure project



- Project Financing Repayment mirrors project cashflows
- EMI – standard 8 years
- Equal repayment – Equal Principal amortization

Project cost : Rs 1000
 Equity : Rs 300
 Debt : Rs 700

Credit Instruments - Evolving

Rupee Debt

Plain Vanilla –
Equated
principal
repayment
5 years

5-10 year
modeled on
cashflows –
Tenor and
Moratoriums
flexible

Securitizations,
Take out
financing,,
Liquidity
contracts,
Guarantees,
Listed debt

Risk Mitigations

Interest rate,
Fixed & Floating

FX hedging, Int
swaps, Take out
Financing, put
options, Commodity
hedging

CDS, Index
linked structures,
Sub debt, sub
sub debt etc

Tenor

- Most bankers prefer have door to door tenors of 5-8 years over which principal and interest are recovered
- Infrastructure Projects require longer tenor inherently
- Tenor elongation need of the hour
 - Broad basing lenders
 - Pension Funds
 - International Lenders
 - Multilateral Agencies
 - Capital Market ie listed debt
 - Structured Products
 - Takeout financing
 - Fall away financial guarantees
 - Liquidity agreements with third parties / sponsors
 - Cashflow sweeps changing door to door tenors

Moratoriums

- Infrastructure Projects need time for stabilization
- Non-moratorium debt puts excessive pressure on cashflows with stress to both Company & Financiers
- Need of the hour – longer moratoriums
 - Based on project requirements and not on standard ‘norms’
 - Use of step up structures, season varying structures (for wind power / Hydro power financing) etc
- Structured products
 - Project finance using a variety of instruments like
 - DDBs,
 - Cumulative Preference shares,
 - GTRL debt with back ended preference shares repayment
 - Mezzanine debt

Other structures...

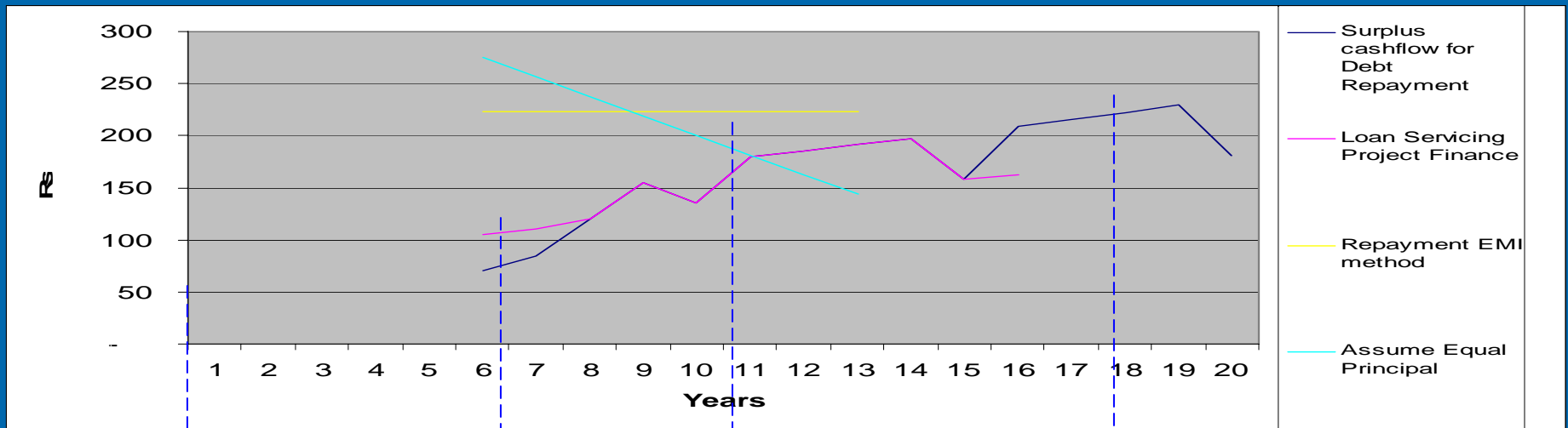
- Leases
 - Financial Lease (Tax swaps)
 - KRCL (during very trying Liquidity times in 1996)
 - Operating Leases with residual value risk to lessors (Tax and partial risk swaps, pay per use options)

- Preference shares
 - Tax and priority cashflows considerations

- Securitization
 - Various classes of instruments parceling risk, door to door maturities to various types of lenders
 - Also allows effective utilization of the yield and risk curve

- Hedging instruments
 - Interest rate swaps – fixed to floating / vice versa
 - CDS – to get reduce effective costs / higher tenors
 - FX hedge instruments
 - Commodity hedges-to protect variability's on cashflows due to commodity price movements

Cashflows from a Typical Infrastructure project



Construction, Only use of cashflow

Rising & slightly unpredictable cashflows

Stabilized cashflows for repayment of debt

Equity Returns

Financing

- Equity
- Senior Debt
- Mez Debt

- I - Moratorium ends
- Small P-recovery

- P-Recovery senior debt
- I - on Mex debt

- DDB repayments
- P- on Mex debt

- P on Mez debt
- Equity returns

Risk Mitigation

- Performance Guarantees
- DDBs
- Turnkey contracts

- Liquidity Contracts
- Raw material hedging
- Take out contracts

- Interest rate hedges
- Cashflow sweep accounts
- FX Risk hedge

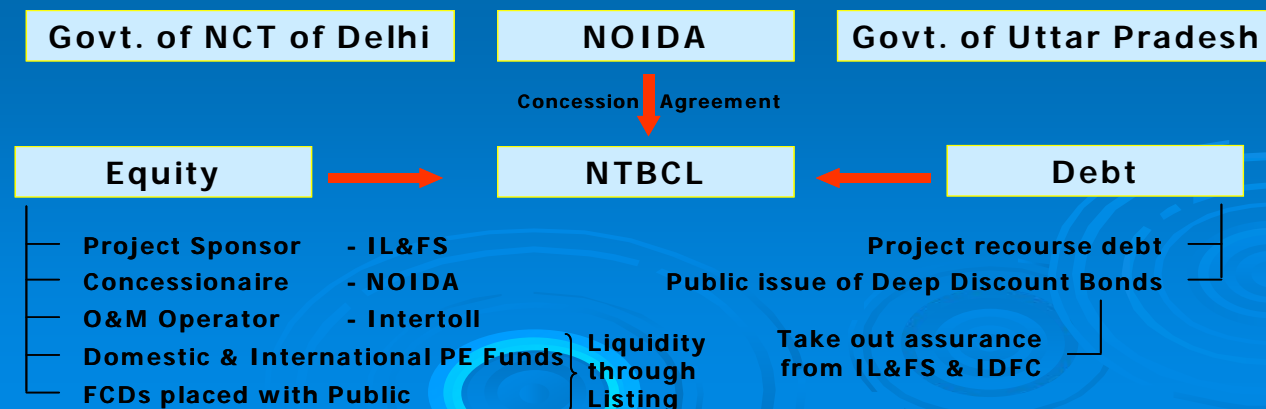
A Test Case

➤ NOIDA Toll Bridge

- Conceptualized by IL&FS in 1992
- Designed to decongest the existing connections between Delhi and its satellite township (NOIDA) over the river Yamuna
- Was the first large scale privatized infrastructure project (> Rs 4,000 mn)
- No support from budgetary allocations
- Required extensive project development – over a period of 5 years
 - Involvement of two State Governments and one development authority (the bridge spans two state jurisdictions)
 - Concession framework non-existent
 - Authored by IL&FS
 - Became a model for future road projects
- Funding initially conceptualized through the traditional debt-equity mix with participation from Multilateral Institutions on a non-recourse basis

Structuring Initial Funding

- Initial years, all project financing highly dependant on multilateral financing
- Indian banks stepped up to participate into Infrastructure project funding
- Bridging funding gap
 - Issuance of deep discount bonds to retail investors, with credit enhancement by way of take out assurance from IL&FS and IDFC – the first in the country
 - Credit enhancement for term lenders to provide comfort for long term lending
 - Brought in Private Equity Play
 - O&M operator made part of the equity structure
 - Placement of fully convertible debentures



The Result

- Total length of facility : 7.5 Km
- 8-lane bridge – first continuous bridge in India with expansion joints only at the abutments
- A 27 lane toll plaza
 - Fully automated
 - Self Auditable with accuracy > 99.5%
 - First in India to have Express ETC Lanes



Structuring Growth Funding

- Slower than expected traffic growth in the initial years
- Need to lower interest servicing costs
 - Company listed in 2002 – First green field infrastructure project in India to go public
 - Buyback of high interest bearing DDBs
- Need to increase traffic catchment to fully utilize the facility. Funding required for
 - Adding access points to the bridge from neighboring areas
 - Providing link to National Highway and proposed Greater NOIDA Expressway
- Recognized world class facilities and a secular traffic growth meant that the project was ripe for attracting international interest
- Second round funding through AIM, London
 - Raised US\$ 45 mn
 - First Indian infrastructure project to be listed on the AIM Exchange

Thank You

