



ACCESSING DEBT CAPITAL MARKETS FOR INFRASTRUCTURE FINANCING

OPPORTUNITIES & CHALLENGES



Nigerian Debt Capital Markets Workshop 2015

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OUTLINE

- I. Infrastructure – A Unique Asset Class
- II. Key Characteristics Of Infrastructure Projects
- III. Infrastructure Risk vs Return
- IV. Infrastructure Financing In Nigeria: Existing Landscape
- V. Role Of DCM In Infrastructure: Experience Of Other Emerging Markets
- VI. Options For Infrastructure Debt Investment
- VII. Summary

INFRASTRUCTURE IS A UNIQUE ASSET CLASS

Most suited for pension funds, insurance companies and other long-term institutional investors

Long Term Nature	▪ Long term nature of infrastructure cash flows enables investors to better match their assets and liabilities
Low Correlation and Volatility	▪ Operating and financial performance of underlying projects has low or no correlation to macro environment ▪ Investment performance is predictable (i.e. little or no volatility)
Diversification	▪ Enables diversification away from traditional asset classes, particularly government securities and listed equity
Inflation Hedge	▪ Infrastructure investments can provide a hedge against inflation
Principal Preservation	▪ High degree of downside protection through strong physical asset base and robust contracts, often backed by sovereign entities

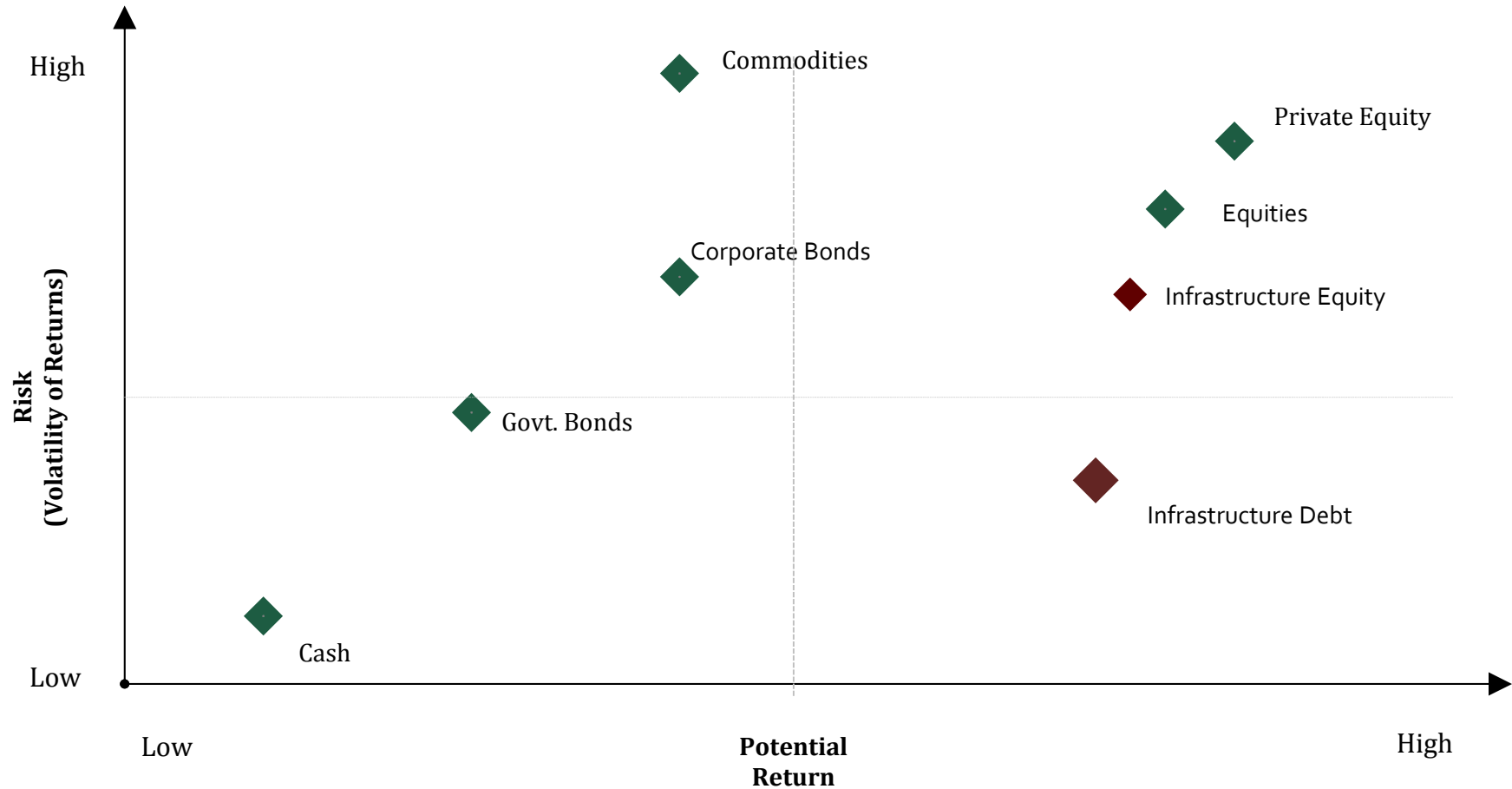
KEY CHARACTERISTICS OF INFRASTRUCTURE PROJECTS

Infrastructure projects provide essential services, support and accelerate economic growth lenders

Strong government support	▪ Projects underpinned by strong support from government, through off-take agreements, grant of concessions or licenses, supply of feedstock, risk sharing and land use rights ▪ Government support through capital investment or guarantee of revenues and return
Provision of essential services	▪ Infrastructure projects are critical for economic and social development ▪ These projects have a huge multiplier effect on economic growth and development
Long-term, predictable cash flows	▪ Infrastructure projects have consistent and predictable cash flows, derived from either (i) “take-or-pay” type agreements; (ii) provision of monopoly services; or (iii) guaranteed returns on capital investment
Large asset base with long useful life	▪ A large proportion of investment is in the form of physical assets that are verifiable and have a very long life, supporting asset backed financing structures
Long term Financing	▪ Need long-term debt and equity funding, to match capital structure with profile of cashflows

INFRASTRUCTURE HAS DEMONSTRATED STRONG PERFORMANCE

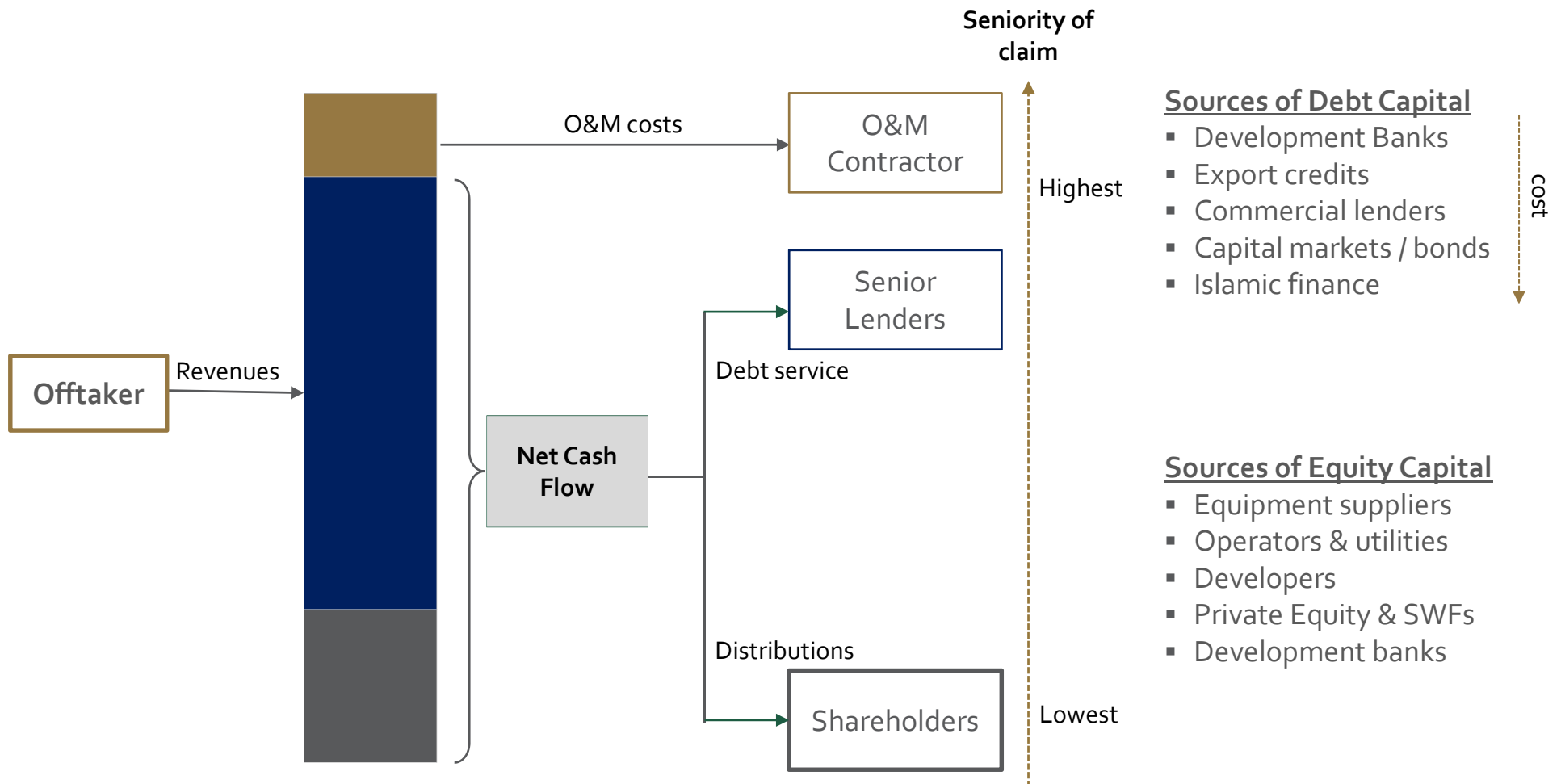
Infrastructure has a low correlation with other asset classes and can improve portfolio risk adjusted returns



Source: 1925-2009 data from Barclays Capital, Deutsche Bank and CSFB

FINANCING OF INFRASTRUCTURE PROJECTS

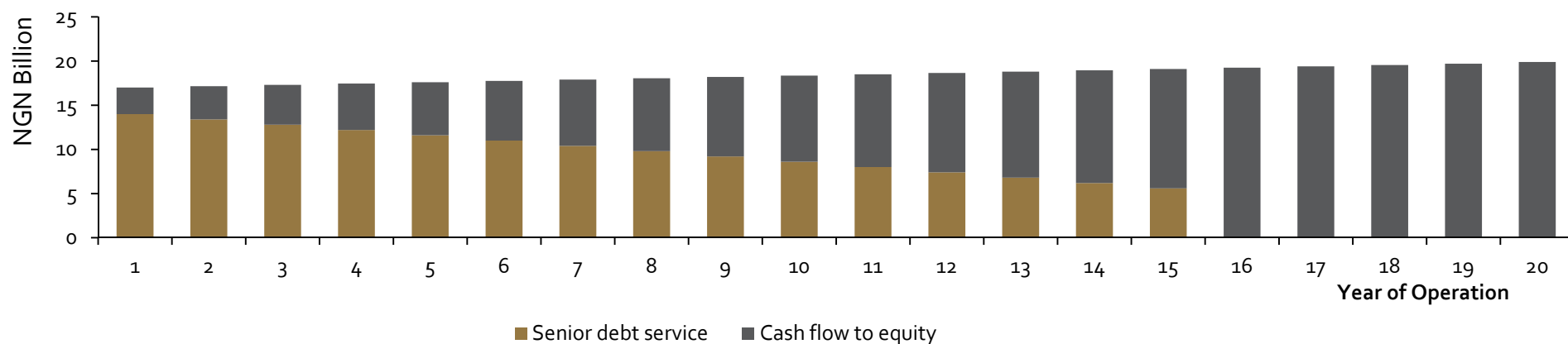
Revenues from infrastructure projects flows through a well-defined "Cascade"



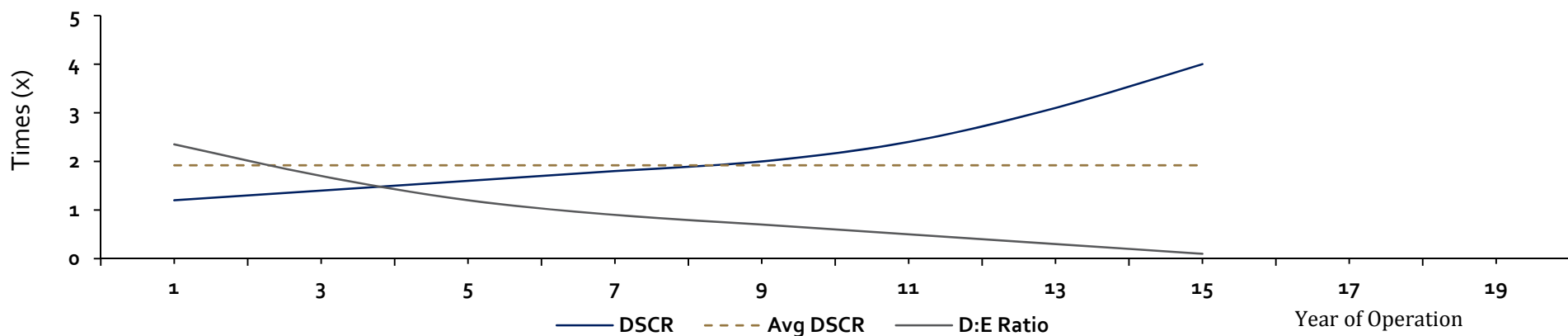
CASHFLOW PROFILE OF INFRASTRUCTURE PROJECTS

Front-loaded debt amortization profile means credit quality of the projects improves continually

Infrastructure Projects - Typical Cashflow Profile



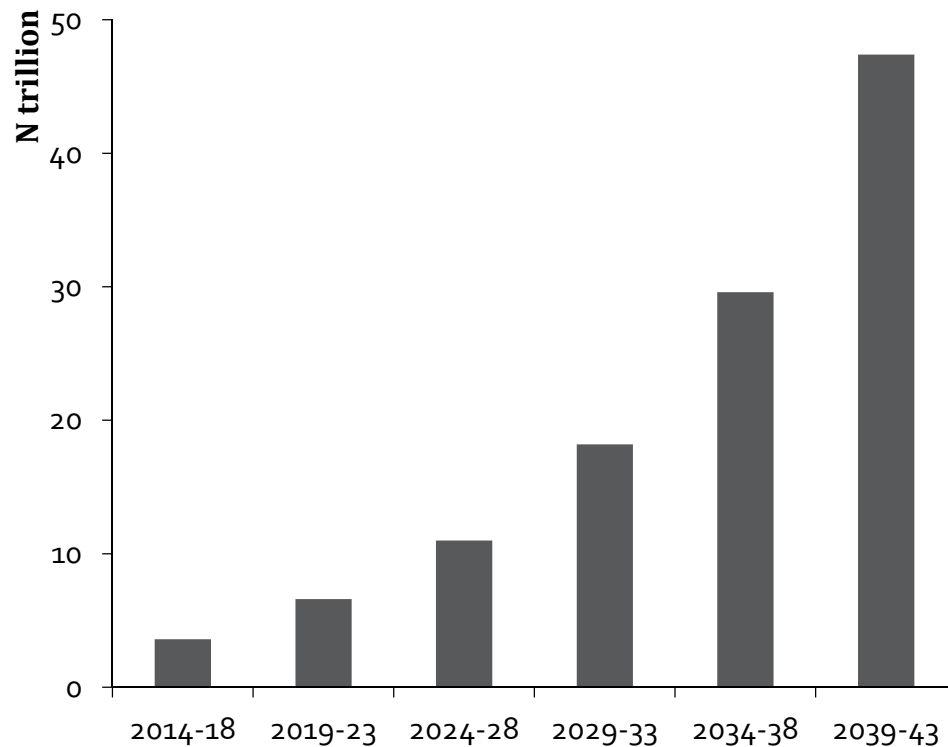
Infrastructure Projects – Evolution of Coverage Ratios



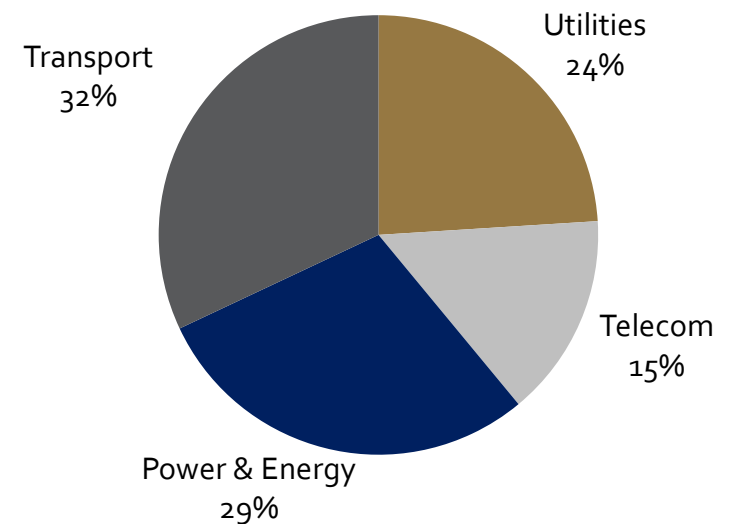
NIGERIA'S INFRASTRUCTURE FUNDING REQUIREMENTS

Nigeria needs N2.8 trillion annually from private sources to finance infrastructure deficit over the next decade

Annual Average Spending Requirement



... Investment will be well spread across sectors



Source: Draft NIIP, 2013, 1 USD = 200 NGN

CURRENT PROFILE OF BANK FUNDING FOR INFRASTRUCTURE

Significant mismatch in the profile of funding required for infrastructure vis-à-vis available Nigerian bank debt

- To be financially affordable, infrastructure projects require truly long-term (15-20 years) debt financing
- For vast majority of projects , revenues are NGN denominated [even if there is some form of FX backstop].
- Banks have no long-term deposits, so have financed infrastructure loans through Tier-II bonds with 5-7 years' maturity
- Significant adverse impact of the recent changes in global and domestic macro-economic policy and constraints:
 - **FX exposure:** Increase in debt burden of projects of c. 40% in NGN terms
 - **Cost of funding:** With banks unable to borrow cheaply in international markets, cost of funding (in USD terms) has shot up [if at all available]
 - **Maturity mismatch:** With projects taking longer to stabilize cash flows, servicing of existing loans is causing serious cashflow constraints on projects.

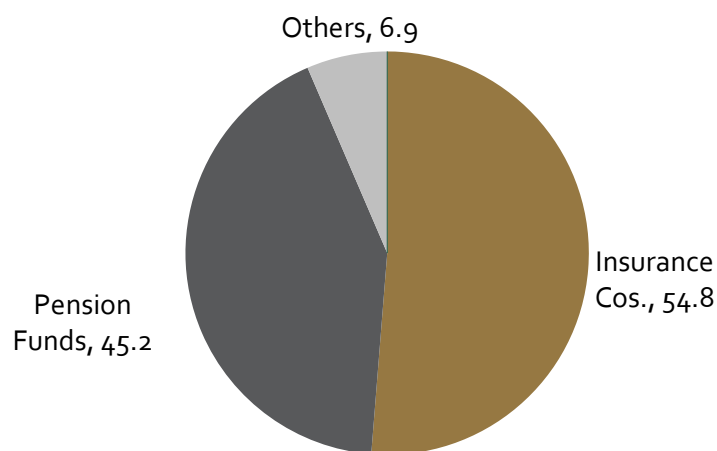
DEBT CAPITAL MARKETS ROLE IN INFRASTRUCTURE FINANCING

A number of Emerging Markets have successfully used local Debt Capital Markets for infrastructure financing

Latin America vs. Nigeria: Pension Funds' Infrastructure Portfolios

Country	Brazil	Columbia	Chile	Mexico	Peru	Nigeria	Total
Total AUM (US\$ bn)	310	51	158	121	24	26	690
Infrastructure Investments (US\$ bn)	62.6	9.5	14.4	10.8	3.4	0.01	100.7
% of portfolio	21.0%	18.7%	10.3%	8.9%	11.1%	0.04%	15.2%

Chile: Holding of Infrastructure Bonds (%)



Source: IMF Working Paper

KEY FACTORS SUPPORTING DCM ROLE IN INFRASTRUCTURE FINANCING

Countries with successful track of institutional investment in infrastructure have a number of common features

Parameter	Nigeria's current status
Measures to enlarge the domestic institutional investor base, particularly through pension sector reforms	Completed
Deep restructuring and institutional reforms in core sectors to promote sustainable private investment in infrastructure	In progress
Enacting enabling capital markets regulatory framework to facilitate flow of institutional capital into infrastructure	Mostly complete
Government support to specific projects through capital grants, minimum revenue guarantees and risk sharing	Available
Encourage government-owned infrastructure entities to access the capital markets	Awaited
Steady flow of bankable transactions	In progress
Macro-economic stability, with low and falling inflation	???

STRUCTURING INFRASTRUCTURE INVESTMENTS USING DCM

There are a variety of proven options for utilizing Debt Capital Markets for financing infrastructure

Project Bonds

- Used to finance a specific project and repaid from the same project's cash flows
- Bear the risk of [non] performance by the project

Wrapped Bonds

- A variant of Project Bonds, supported by some form of credit insurance from a highly-rated entity
- High credit rating means many more entities can invest in them

Infrastructure Bonds

- Issued by banks to raise long-term liabilities that match the tenor of infrastructure loans. The issuer bears all project-related risks.
- Typically enjoy some form of tax incentive from the government

Securitisation

- Infrastructure loans unwritten by banks are structured into marketable securities, bought by institutional investors
- Issuing bank typically has to keep the "equity" tranche on its books

Infrastructure Debt Funds

- Invest the capital raised from institutional investors into loans and securitized debt of infrastructure projects
- The fund is listed and traded on a securities exchange

PROJECT BONDS: WHAT DOES IT TAKE TO MAKE THEM WORK?

Sovereign yield curve	▪ A well-developed sovereign yield curve is imperative, given the sovereign-linked nature of most EM infrastructure
Pricing	▪ At a premium to the relevant sovereign reference [without credit enhancement] ▪ Use of floating rate structure to address interest rate risk
Credit rating	▪ “Maturity” of the rating methodology to reflect domestic risk dynamics – conventional definitions of Investment Grade and Sub-investment Grade may not really be relevant ▪ How to make best credit judgment in the absence of historical data / track record? ▪ Need to avoid a lazy investment attitude: “Don’t outsource credit analysis to the rating agencies!”
Credit enhancement	▪ For “Monoline” insurance, the premium charged as a share of gross mark-up over sovereign has to be justified ▪ Govt. guarantees will always have limited scope due to budgetary constraints
Ease and cost of trading	▪ Liquidity through market making, sustained over the life of the bond – need to convince the investors that bid/ask spreads would be reasonable ▪ Preferential brokerage fees [typically 50% or less for that of equity]
Institutional capacity	▪ Infrastructure credit expertise within the investing institutions – has to be built over time – which can be expensive ▪ Justification for dedicated resources through sustained deal pipeline

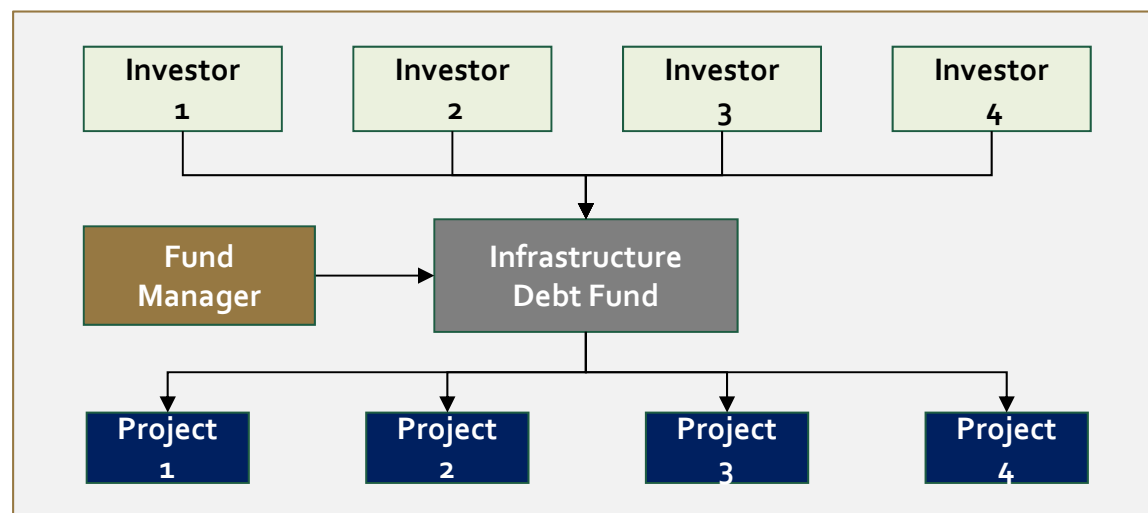
PROJECT BONDS: SELECT REFERENCES IN EMERGING MARKETS

Project	Country	Year	Market	Issue size (million)	Tenor (Years)
Cupisnique & Talara wind farms	Peru	2014	International	USD204	20
Manjung 3A IPP	Malaysia	2014	Domestic	MYR3,655	10-20
Touwsrivier Solar IPP	South Africa	2013	Domestic	ZAR1,000	16
Ruwais Power Company	UAE	2013	International	USD825	23
Ras Laffan LNG	Qatar	2006	International	USD1,200	10 /18
Noida toll bridge	India	1999	Domestic	INR700	16

CONCEPT OF INFRASTRUCTURE DEBT FUNDS

- *Post-2008, Infrastructure Debt Funds (IDFs) have emerged as the preferred structure for institutional investment into infrastructure*
- An IDF invests in senior and/or subordinated debt of infrastructure projects, identified based on well-defined investment guidelines
- Fund Manager's Investment Committee and execution team provides the necessary expertise to structure, analyze and document each transaction
- By working alongside banks and DFIs/ECAs, IDFs provides investors benefits of extensive due diligence, bespoke structuring and comprehensive documentation

Infrastructure Debt Fund: Basic structure



- Starting with a portfolio of 5-6 projects, the Fund continues to make additional investments and diversify the portfolio
- On reaching a meaningful size, the Fund is listed on a recognized securities exchange

INFRASTRUCTURE DEBT FUNDS: REFERENCES

While a number of IDFs have been set up in mature markets, IDFs are just taking off in Emerging Markets

- UK: GCP Infrastructure Debt Fund, Allianz Infrastructure Debt Fund
- Global (OECD markets): AMP Infrastructure Debt Fund
- Canada: Stonebridge Infrastructure Debt Fund
- Australia: Westbourne Infrastructure Debt Fund
- India: India Infradebt Limited
- Brazil: BB DTVM Infrastructure Debt Fund
- India: IIFCL Infrastructure Debt Fund
- India: SREI Infrastructure Debt Fund
- India: L & T Infrastructure Debt Fund
- GCC: MENA Infrastructure Fund

PROJECT BONDS VS. IDFS: COMPARISON

Parameter	Project Bonds	IDFs
Portfolio diversification	Relatively more difficult to achieve, need to buy individual bonds	Fund portfolio has in-built diversification
Liquidity	Relatively lower, particularly if each bond issue is small	Increases with time as the total portfolio size grows
Deal flow	Limited to issuer using the bond route	Can participate in all deals that meet Fund's investment objectives
Issuing costs	Relatively high up-front costs for issuers, particularly for smaller issues	Costs are spread over larger portfolio
Infrastructure credit expertise	Each investor needs to build internal capacity	Fund Manager team provides the expertise
Intermediation costs	Relatively low	Relatively higher, to offset the intensive effort involved
Suitability	✓ Relatively mature markets with steady deal flow ✓ Investors that have large infrastructure allocations and have built internal expertise for infrastructure credit	✓ Relatively newer markets with limited track record of infrastructure financing ✓ Investors that have relatively smaller allocations and lack the expertise for infrastructure credit

TO SUMMARISE...

Nigerian Debt Capital Markets will play an increasingly larger role in finance infrastructure investments

- Over the next decade, Nigeria requires N2.8trn annually to fund infrastructure from private sources.
- Banking sources are unable to meet the growing financing needs of Nigeria's infrastructure, as banks would have to grow loans at circa 20% per annum to meet this requirement, compared to circa 9% 2009-14 CAGR.
- Tighter regulatory requirements under Basel III rules will increase the pricing and reduction in supply of long-term bank debt, restricting long-dated bank lending in the absence of long-term deposits.
- The current financing approach is therefore neither sustainable nor scalable.
- Using domestic capital sources as an alternative source of financing is necessary to make infrastructure sustainable and viable.
- Options for suitable DCM structure include project bonds and infrastructure debt funds.
- Many of the "building blocks" required to channel Nigerian institutional capital into infrastructure are now in place.
- Infrastructure equity is more suited to Private Equity, SWFs and large Family Offices, with greater exposure to the asset class and expertise in infrastructure financing.
- Given the relatively early stage of infrastructure financing in Nigeria, Infrastructure Debt Funds perhaps represent the best near term approach for pension funds and other institutions to invest in infrastructure debt.

Thank you