Recent Trends in Infrastructure Financing

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Author – *Infra Financing in India* (OUP, 2024)

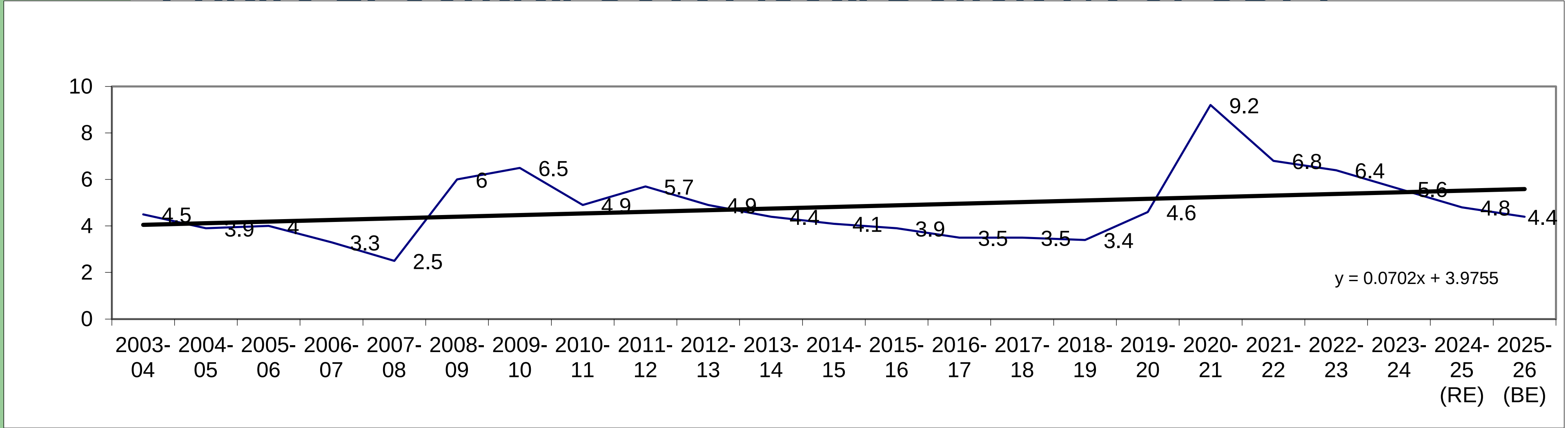
Introduction

- Infrastructure investment is necessary for faster, sustainable, and inclusive economic growth
- India needs to spend 7-8% of her GDP on Infrastructure per annum (World Bank, 2008)
- India has been able to spend Rs.12.5 lakh crore (4.6% of GDP) on infrastructure in 2022-23 (CRISIL, 2023)
- Given the gap between requirement and achievement, there is a need to look at modern and unconventional ways of financing infrastructure projects

Sources of Infra Investment

- **3 traditional sources of infrastructure investment -** Central and State Governments, Internal and Extra Budgetary Resources (IEBR) of the public sector, and Private Investment
- Government financing of infrastructure is generally constrained by the high level of fiscal deficit

Figure 1: Central Govt Fiscal Deficit (% of GDP)



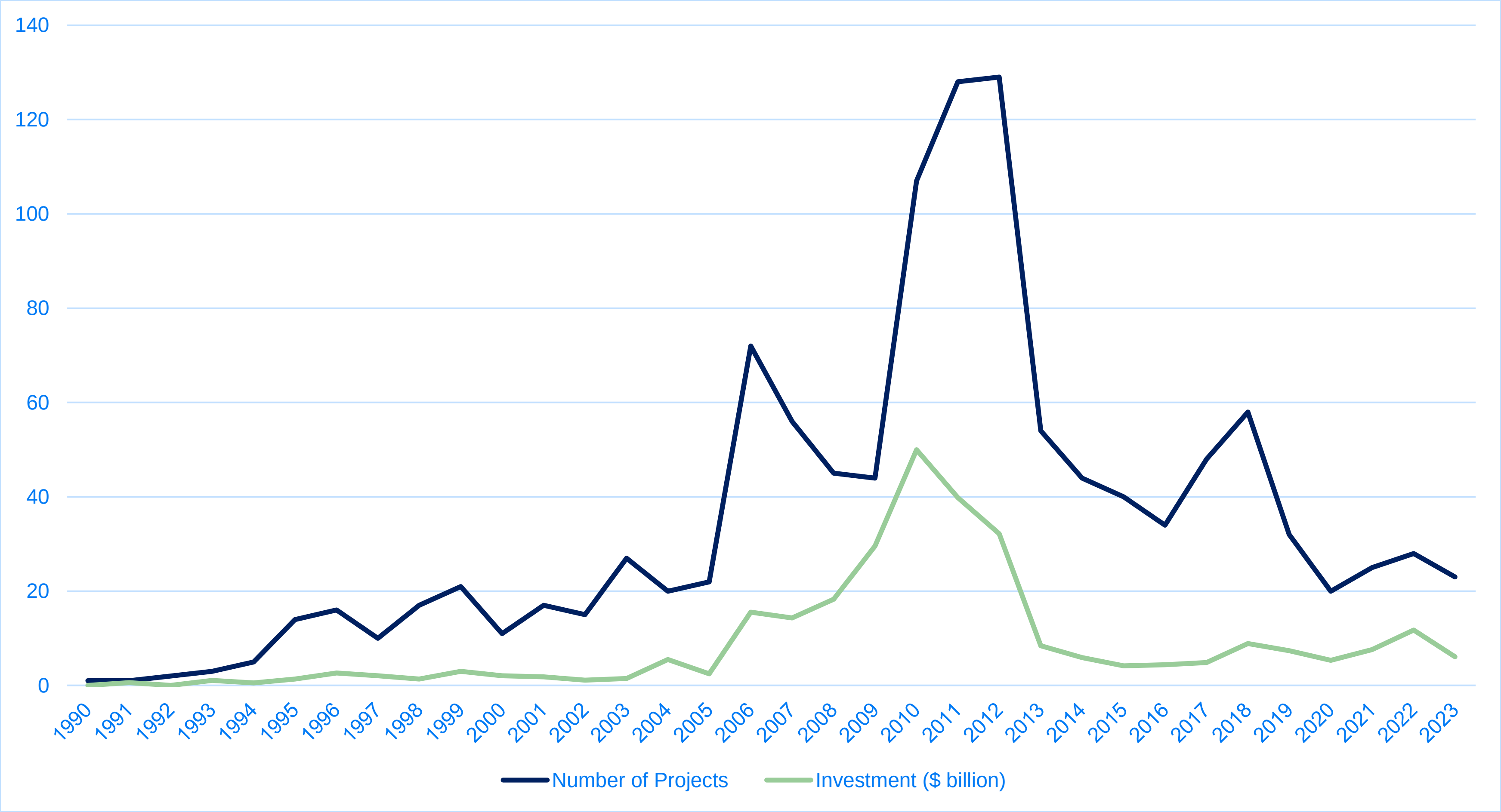
Salient features of India's current infrastructure policy for private sector

- ***Institutional development*** in the form of ***PPP Appraisal Committee, Empowered Committee*** for deciding on the Viability Gap Funding (VGF) of PPP projects, and the setting up of 4 ***independent sectoral infra regulators***
- Since much of infrastructure investment was in the nature of sunk costs, risk mitigation for the private sector was done through ***standardized contracts***
- ***Viability Gap Funding (VGF) Scheme*** was notified in 2006 to enhance the commercial viability of competitively bid infrastructure projects which are justified by economic returns, but do not pass standard thresholds of financial returns

PPP projects in India (1990-2023)

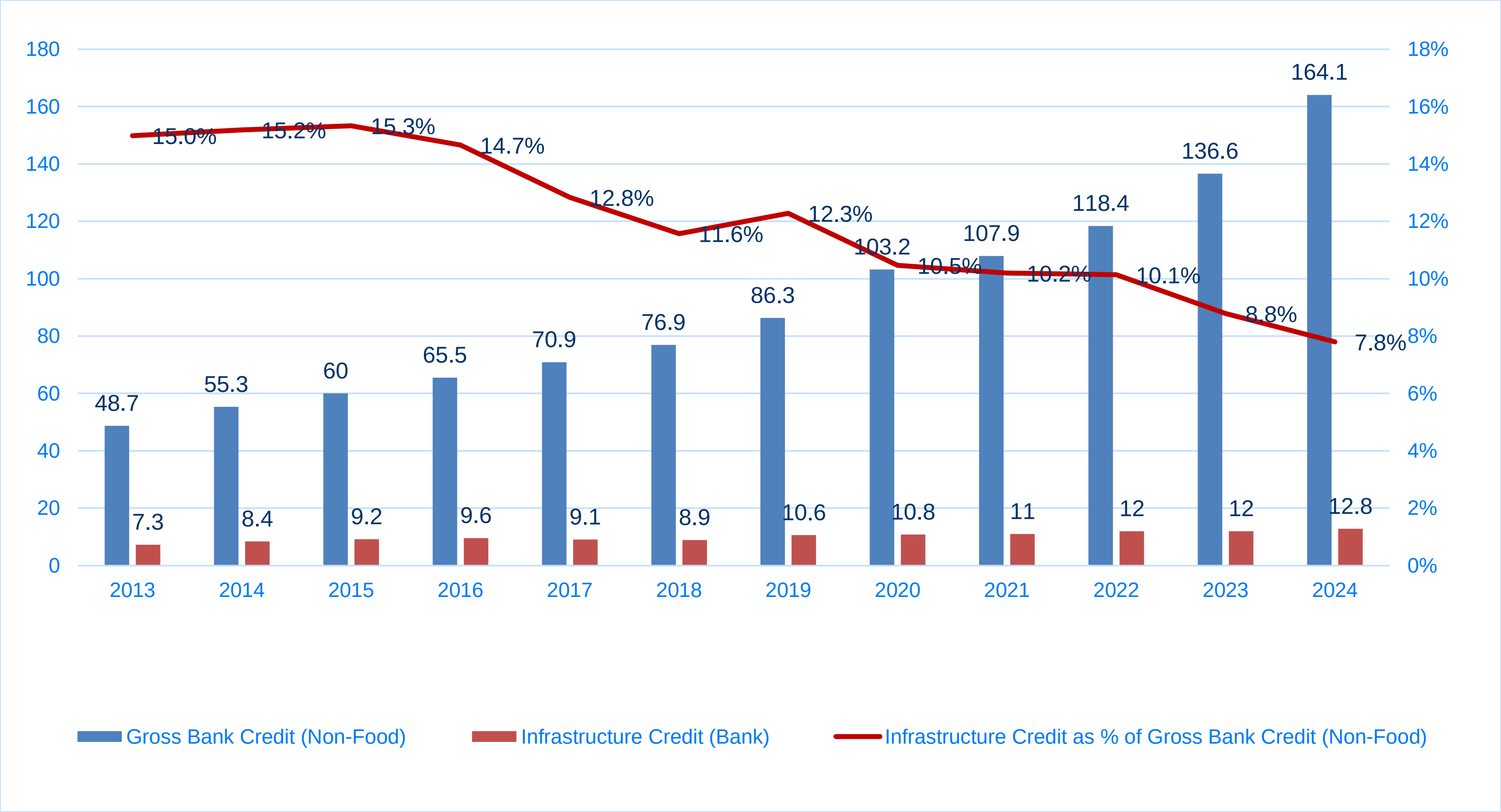
Sector	Number of Projects	Investment ($ billion)
Energy	492	163
ICT	25	3
Transport	599	133
Water & Sewerage	73	3
Total	**1189**	**302**

Private Participation in Infrastructure in India, by years – not recovered since covid

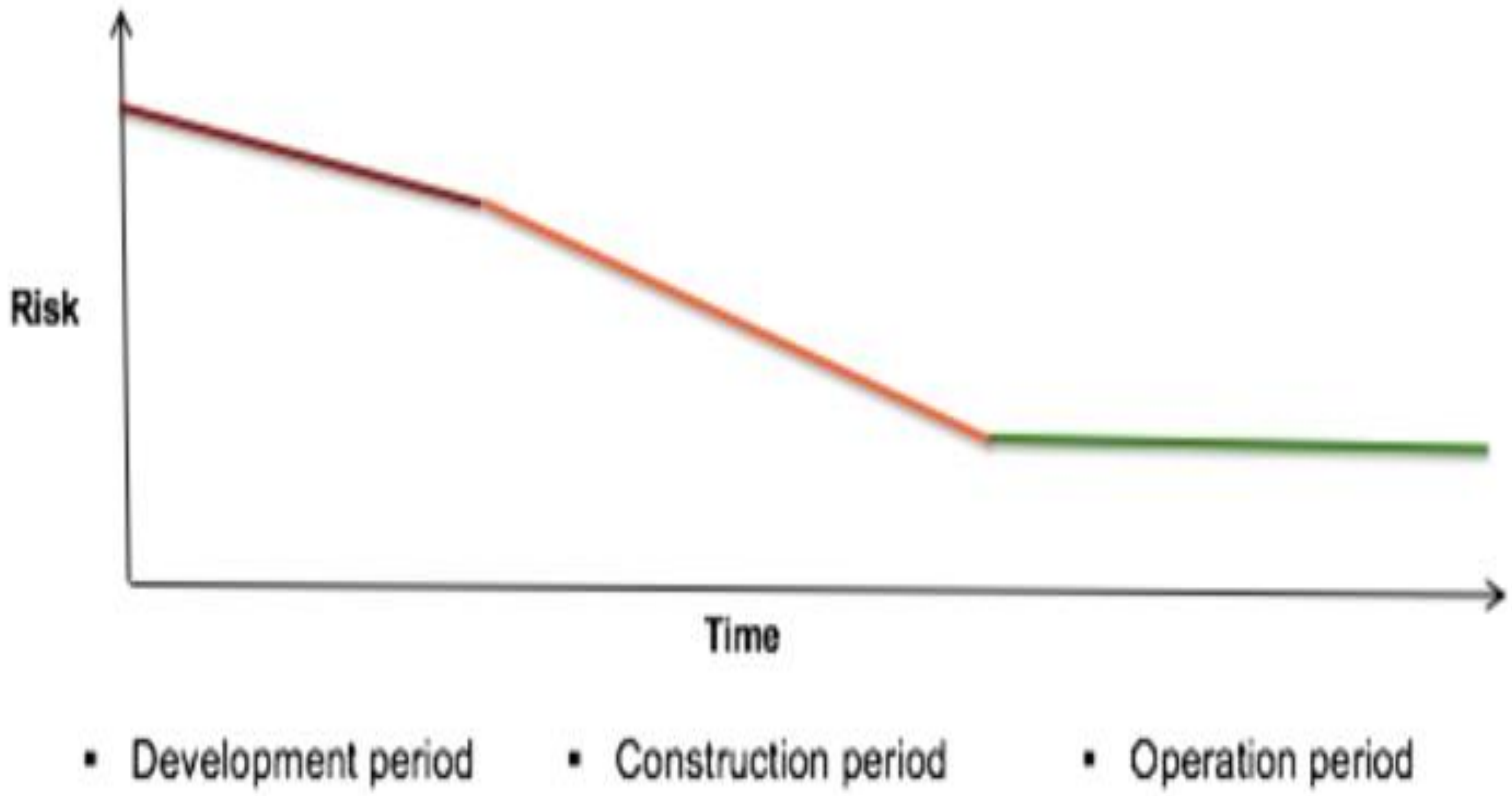


RECENT TRENDS IN INFRASTRUCTURE FINANCING

Slowdown in Bank financing of Infrastructure



Changing Risk Profile of Infra Projects over their Lifecycle



Bond financing of infrastructure – Credit Enhancement; Infrastructure Debt Funds

- During early stage of planning and greenfield construction, equity investments and bank loans constitute the major part of financing
- After project implementation and stabilization of cash flows (operational phase, brownfield infrastructure), long term capital becomes important which may be tapped via bond issuances
- Credit enhancement of bonds floated by these companies will make them amenable to institutional investment

Pooled and Blended Finance, Green Bonds

- Instruments like **pooled and blended finance** (combining public and philanthropic capital with private investments using credit enhancement) may be used to harness long term capital for critical social infrastructure – water
- **Green bonds** are debt securities that are issued to raise capital specifically to support climate related or environmental projects - In 2021, Indian companies have attracted US$9.7 billion in green bonds (crucial for RE)

Brownfield Asset Monetization (or Asset Recycling) – Toll-Operate-Transfer (TOT) model and Infrastructure Investment Trusts (InvITs)

- Given the large infrastructure deficit in the country, BAM offers an alternative for financing of infrastructure without raising taxes or debt.
- Risks faced by infrastructure projects are considerably reduced over the project lifecycle from construction to operation stage, as issues related to land acquisition and environment and forest clearances are addressed at the construction stage. Therefore, operational projects (brownfield infrastructure) may be able to attract finance from institutional investors consisting of pension, insurance and sovereign wealth funds.

Brownfield Asset Monetization

- BAM frees up funds tied up in de-risked brownfield public sector assets such as **telecom towers, roads, power transmission lines, gas and oil pipelines, airports, railway tracks**
- BAM allows investment from institutional investors like pension and insurance funds, and HNIs, against a capital consideration which captures value of future cash flows from these underlying assets.
- Capital value realised is often more than the sum of discounted cash flows – also unlock efficiencies

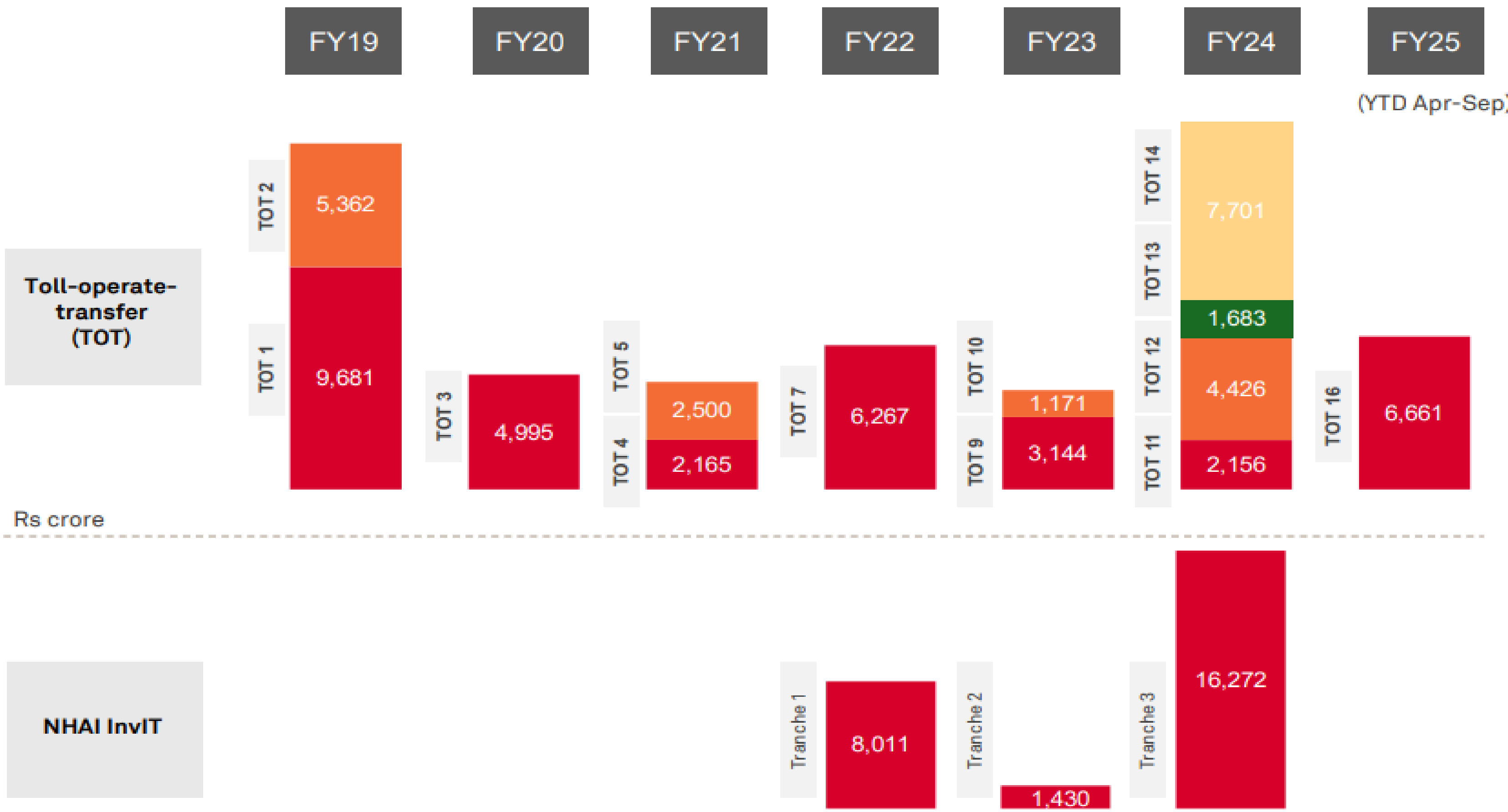
Toll-Operate-Transfer (TOT)

- NHAI’s first TOT bid (Feb 2018)
  - 680 km of national highways (9 road projects)
  - Generated additional revenue (premium) of Rs. 34 billion [winning bid (Rs. 97 bn) – reserve price (Rs. 63 bn)]
  - → premium of Rs.50 million per km
  - Winning bidder - consortium of Macquarie (Australian investment bank) and Ashoka Buildcon (leading Indian highway developer).

Infrastructure Investment Trust (InvIT)

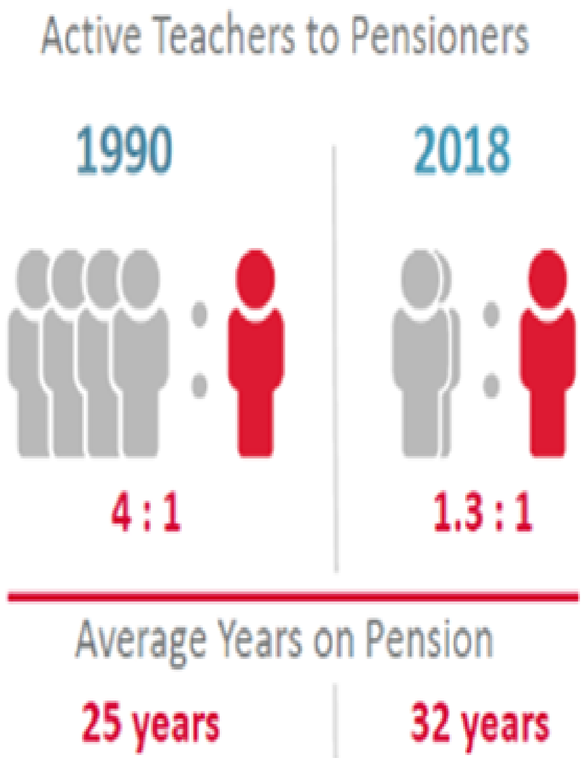
- InvIT - a securitization vehicle that owns, operates and maintains income-generating infra assets; Income generated by these assets distributed to unit holders as dividends
- InvITs are like mutual funds – however, instead of owning financial securities, InvITs own and manage real infrastructure assets
- Pools resources from DIIs, FIIs, and HNIs (like mutual funds) to invest in operational (and therefore de-risked) infra assets
- Allow companies to unlock tied capital in completed projects; ***monetise revenue-generating infra assets – reduce debt***; Attract foreign capital – ***lower cost of capital***

Asset Monetization in the Road sector



Sources: CRISIL MI&A Research

Why are institutional investors keen on infrastructure



Ontario Teachers' Pension Plan (OTPP) administers pension payments of over $6 billion annually. In 1990, there were 4 teachers for every pensioner with an average pension life of 25 years. However, by 2018, the ratio was down to 1.3 active teachers for every pensioner, and a pension life of 32 years. As a result of these demographic trends, OTPP is looking for low-risk, long-term and inflation-hedged investments, which explains their increased interest in infrastructure assets.

Value Capture Finance

- VCF relates to internalizing the externalities associated with large public infrastructure investments for making such investments more financially sustainable
- Creation of infrastructure like roads or metro rails increases property values in and around the area of development. VCF aims to capture this positive externality to improve the financials of the project by seeking to appropriate some of these unearned increases in property values through higher property taxes.

Recap

- India has a large infrastructure deficit because of its high growth rate
- Traditional sources of infrastructure finance are constrained by high fiscal deficit
- Bank finance suffers from Asset-Liability Mismatch
- More reliance needed on bonds, blended finance, green bonds
- Institutional investment (from pension, insurance and SWFs) into infra and Value Capture Finance a huge opportunity