Infrastructure Leasing & Financial Services Limited

_____

___, 2005

Objective of Development

"The basic purpose of development is to **enlarge people's choices*****. In principle, these choices can be infinite and can change over time. People often value achievements that do not show up at all, or not immediately, in income or growth figures: greater access to knowledge, better nutrition and health services, more secure livelihoods, security against crime and physical violence, satisfying leisure hours, political and cultural freedoms and sense of participation in community activities. The objective of development is to <u>create an enabling environment for people to enjoy long, healthy and creative lives</u>."***

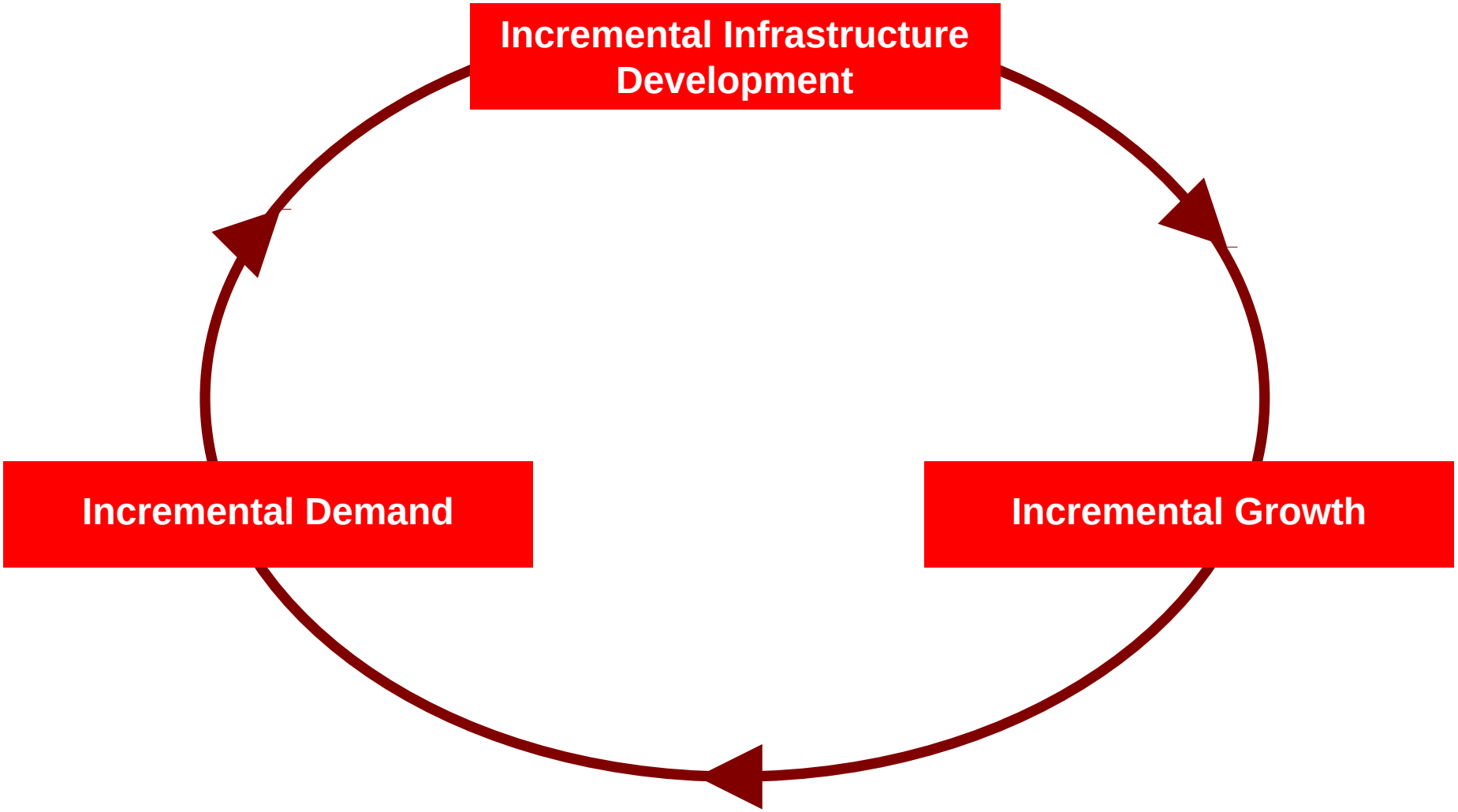
- Development is about much more than just the rise or fall of national incomes
- Development is about creating an environment that builds human capabilities:
  - To lead long and healthy lives
  - To be knowledgeable
  - To have access to the resources needed for a decent standard of living
  - To be able to participate in the life of the community

"Wealth is evidently not the good we are seeking, for it is merely useful for the sake of something else." - Aristotle

Infrastructure and Economic Development

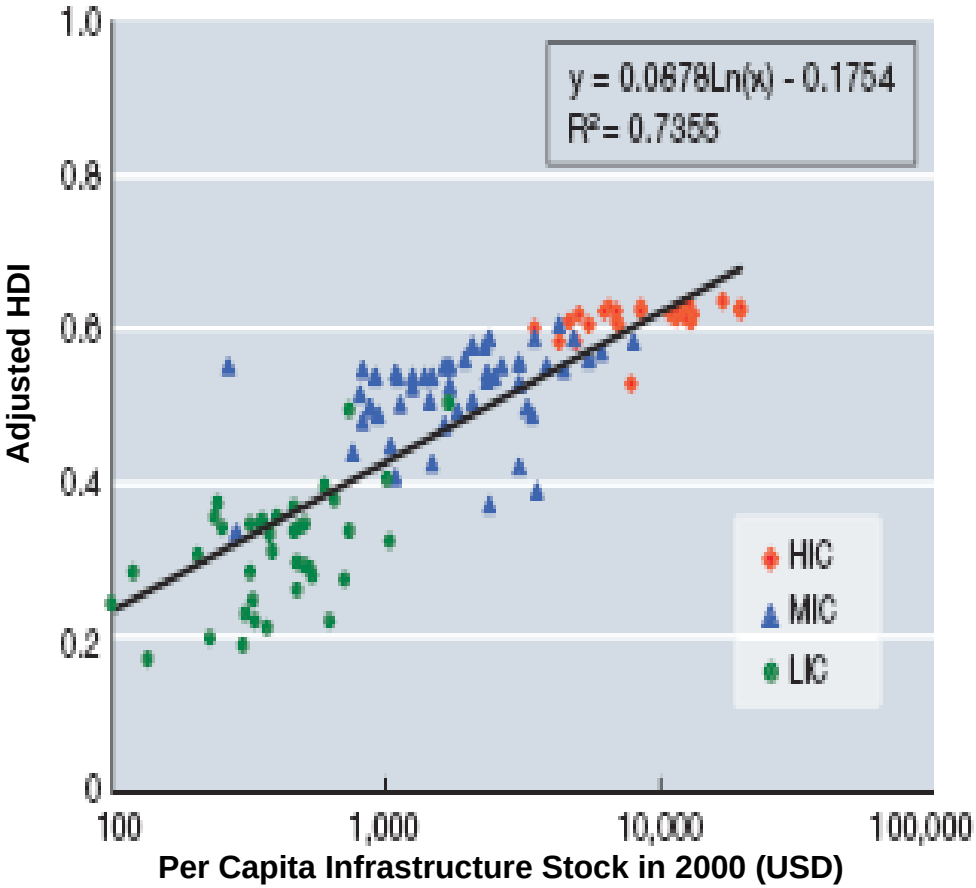
- Infrastructure contributes to economic growth, both through supply and demand channels by:
  - Reducing costs of production
  - Contributing to the diversification of the economy
  - Raising the economic returns to labour
- Infrastructure contributes to raising the quality of life by:
  - Creating amenities
  - Providing consumption goods (transport and communication services)
  - Contributing to macroeconomic stability
- Infrastructure does not create economic potential by itself; it only develops it where appropriate conditions (i.e. other inputs such as labour and private capital) exist

The Virtuous Development Cycle

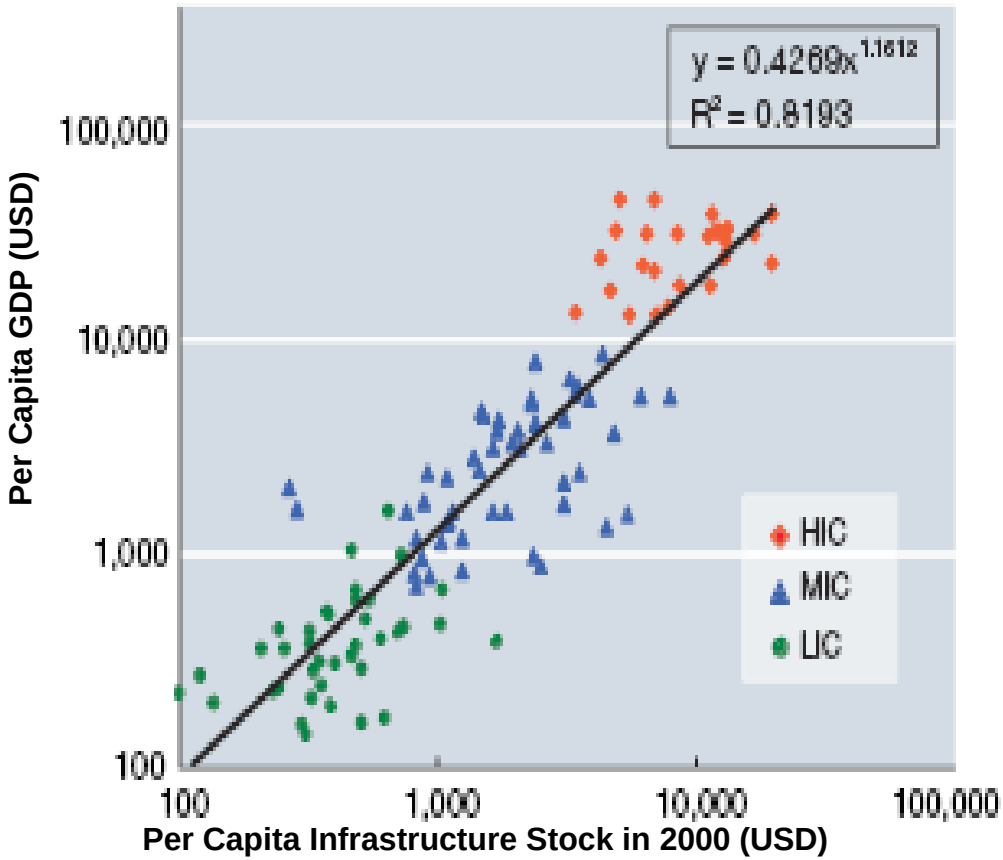


Infrastructure: Correlation to Social Development and Economic Growth

Infrastructure Stock and Adjusted Human Development Index

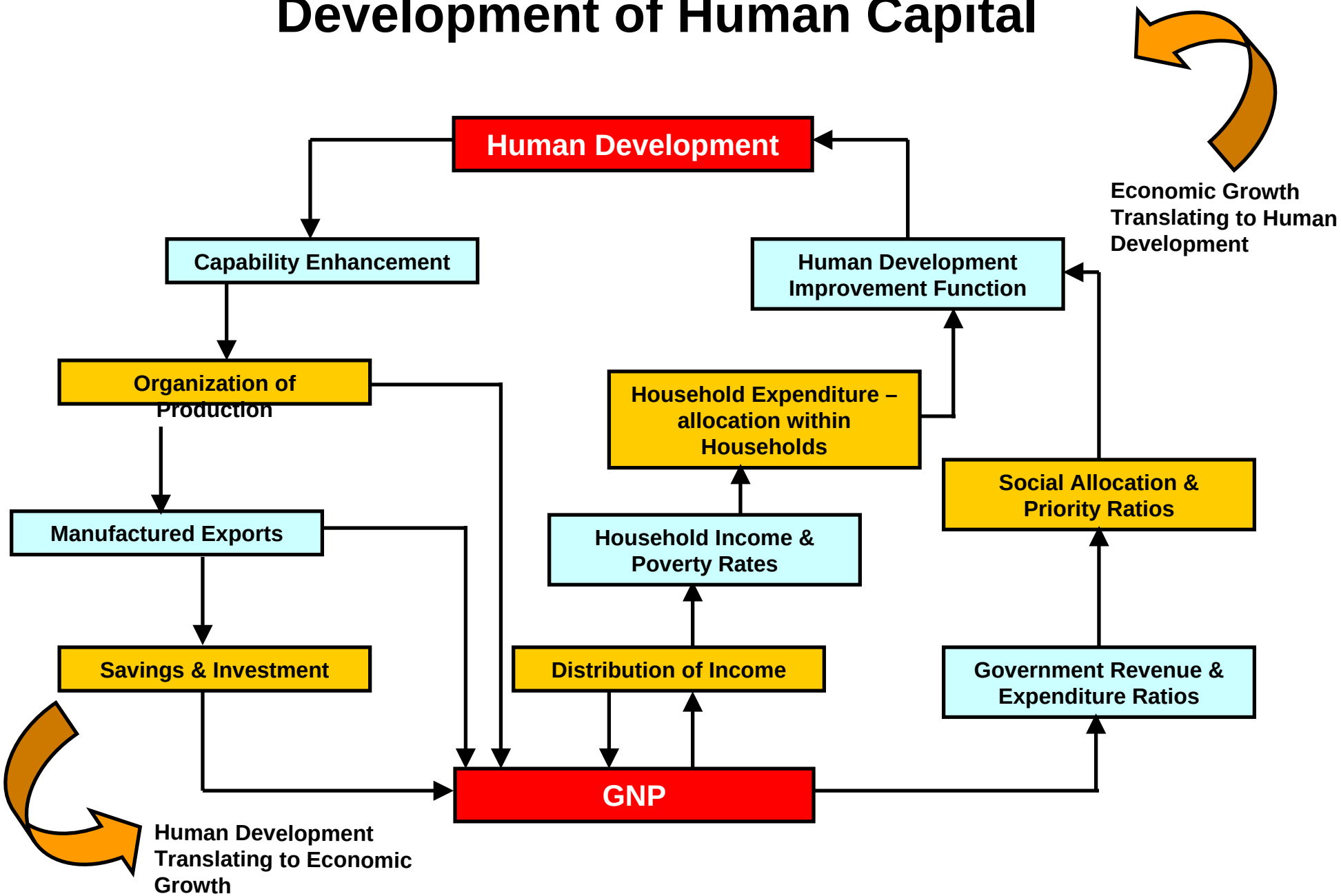


Per Capita GDP and Infrastructure Stock



Source: UNDP 2002 Human Development Report

Development of Human Capital



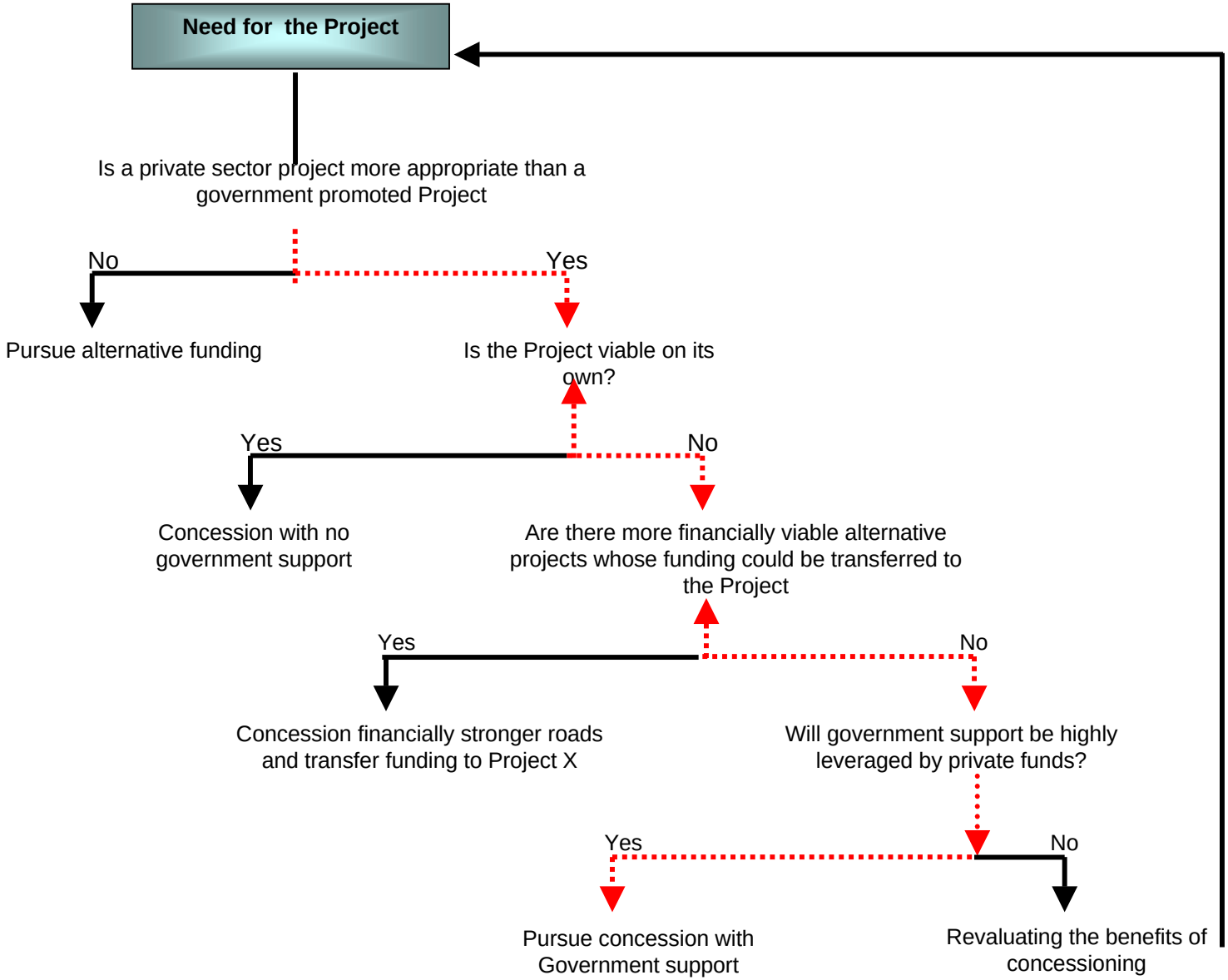
A Case for a Public - Private Partnership in Infrastructure Development

Public-Private Partnership (PPP) constitutes a sustained collaborative effort between the Public sector (government agencies) and Private enterprises to achieve a common objective (e.g., the infrastructure facility) while they pursue their own individual interests.

Benefits of Private Sector Participation

- Transfer of Design/Solution Risk
- Transfer of Financing Risk
- Transfer of Construction Risk
- Transfer of Market Risk
- Transfer of Operations Risk
- Making Subsidies more efficient (subjecting them to competition and capital market scrutiny)

The Privatisation Decision Tree



Private Sector Participation in Infrastructure

"A public authority may be able to own the franchise and, in some cases, part of the fixed capital of a semipublic undertaking, and to lease them for a limited number of years to a Corporation who shall be bound to perform services, or deliver goods, at a certain price and subject to certain other regulations … the special point of the proposal is that, where possible, the competition for the franchise shall turn on the price or the quality, or both, of the services or the goods, rather than on the annual sum paid for the lease"

- Alfred Marshall, 19th Century Economist

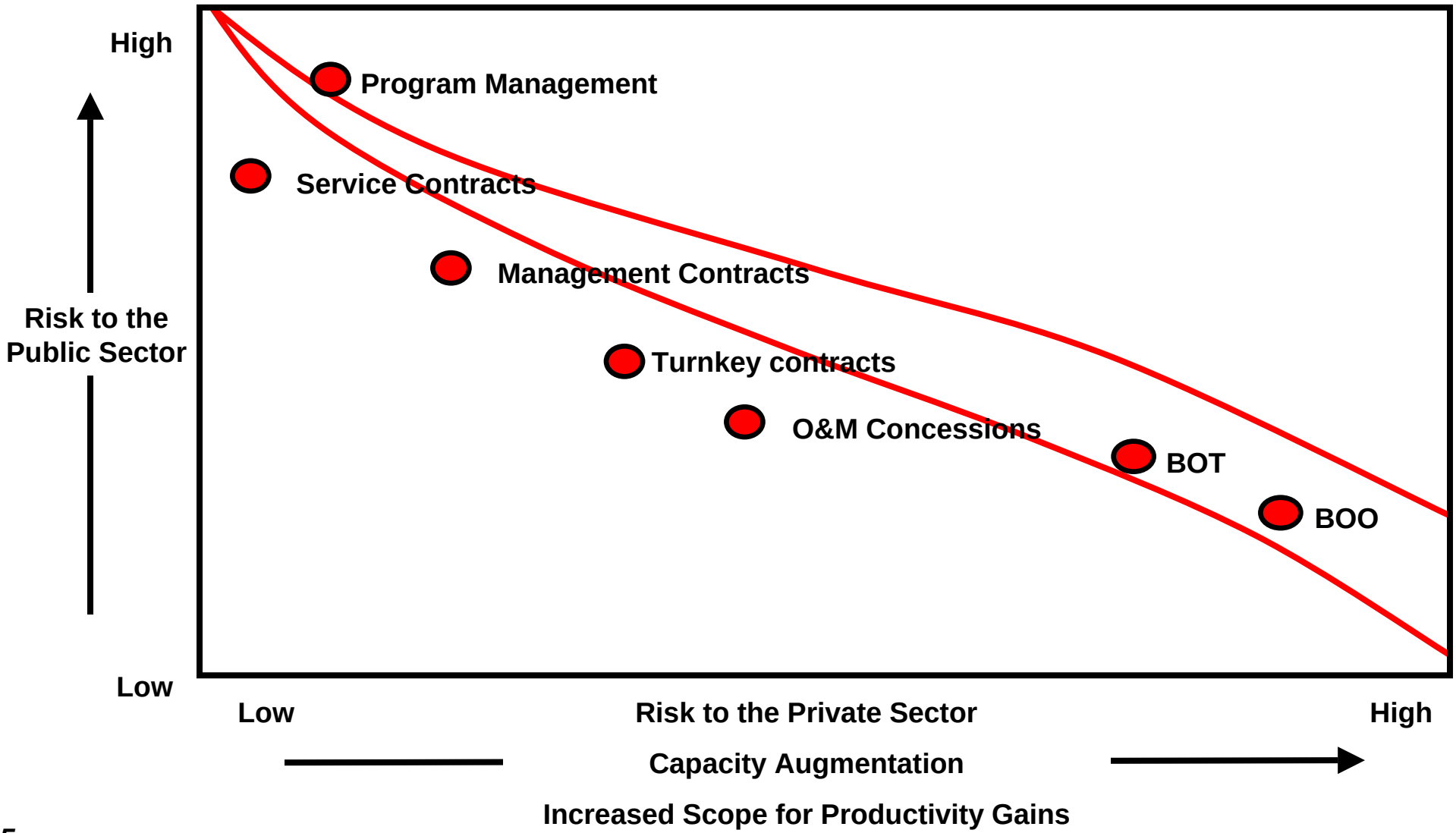
History of PSP in Infrastructure

- PSP has gained wider popularity recently, but it is an old innovation:
  - In France, roads and bridges were concessioned as early as the 16th century. The concessionaires collected tolls in return for maintaining the routes
  - Canals were built in France under concessions as early as the 17th century. The concession document established the timetable for construction and the tariff that could be charged; the entrepreneurs constructing the canal bore market risk
  - In 1777, the French government gave the Perrier brothers a 15-year concession to collect and distribute water to households in parts of Paris, until they ran into financial trouble and their firm was nationalized
  - By the 1820s, there were as many as six private water companies operating in London
  - In the beginning of the 19th century, 15 of the 16 waterworks in the United States were private
  - Local private firms were responsible for developing most of the electricity utilities in Brazil, Chile, Costa Rica, and Mexico in the 19th Century
  - In many Latin American countries such as Argentina, Brazil, and Uruguay, private developers from Britain, France, and the United States built and operated many of the early railways in the 19th and the 20th century

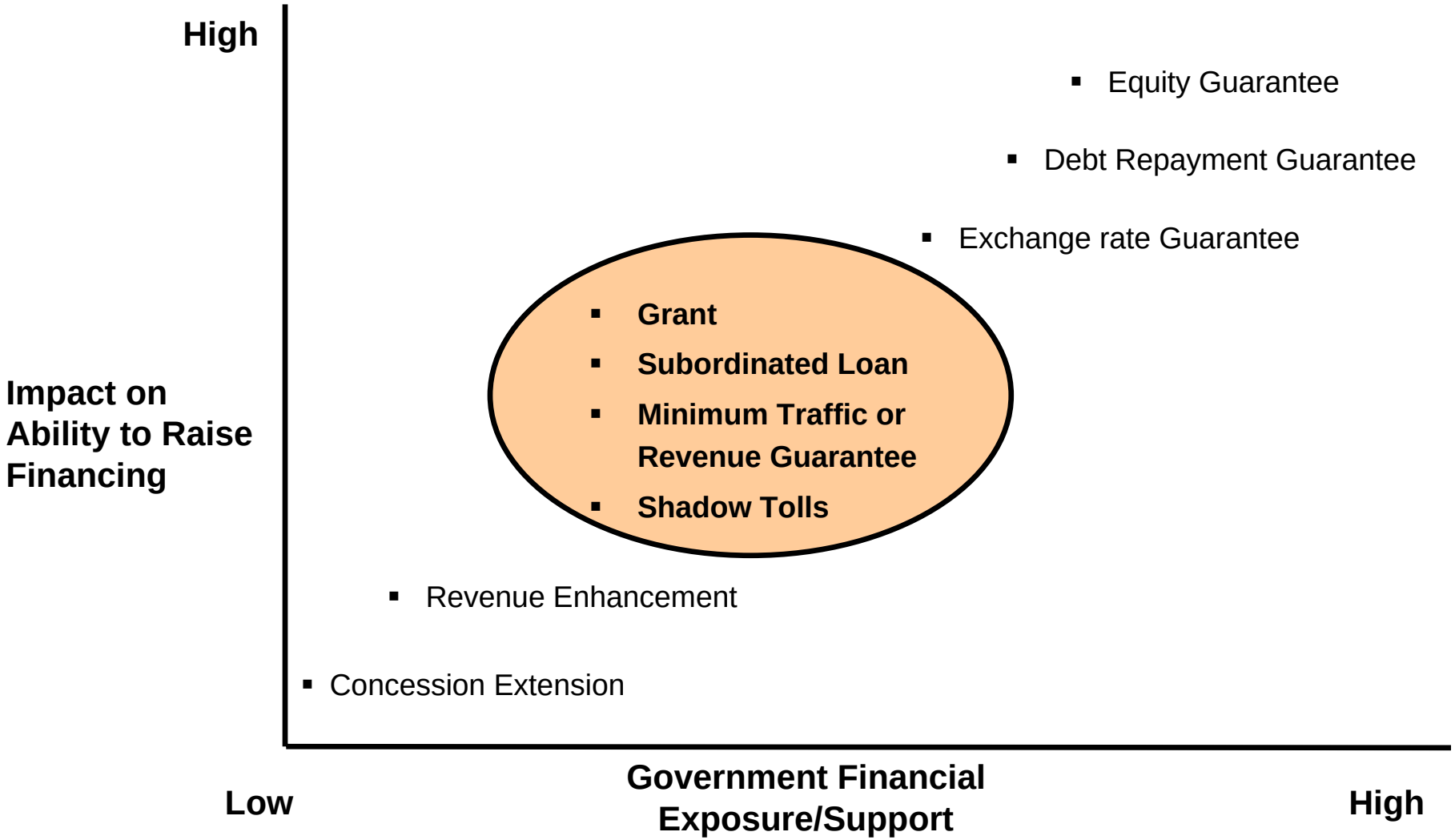
PSP in India

- Railways in the Indian subcontinent were introduced in 1853 through private initiatives. The Great Indian Peninsular Railway Company introduced the first railways in India near Mumbai
- The Government of Bombay enacted the Bombay Tramways Act, 1874, under which the Bombay Tramway Company Limited was licensed to run a tramway service in the city
- In the early 20th century, many of the hydro power projects were introduced by the private sector
- Calcutta Electric Supply Corporation started supplying power to Kolkata as far back as 1906
- The Tata Hydro-Electric Power Supply Company, (now Tata Power) developed hydro power stations near Mumbai in the 1920s to feed to the Bombay Electric Supply and Transport Company (BEST) and the Bombay Suburban Electric Supply Company (BSES) for distribution
- Tata Airlines (now Air India) started commercial services in 1920s
- The first toll road constructed on PPP in India was commissioned in 1991 by IL&FS
- Private participation in the telecom sector commenced in 1995
- The first toll bridge constructed on PPP in India was commissioned in 2001 by IL&FS
- The first private sector Water Supply Project was commissioned in 2005 by IL&FS

Privatisation Options



Government Support



Points to Ponder

The PARADOX

Of

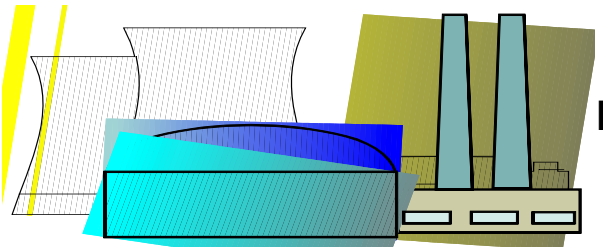
Private Sector Participation

….those who are best able to manage themselves will attract private sector participation and the rest will be left out in the process…

…therefore public sector reform is a necessary first step

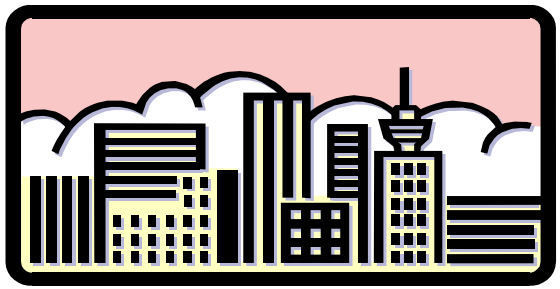
Balancing Interests

Service Provider



Maximise Profits/ Maintain Privileges

Current Consumer – Non Poor



Reduce Tariff

State

Maximise Concession Value

Protect Influent Users

Reduce State Subsidies

Excluded Households (Poor)

Expand Coverage

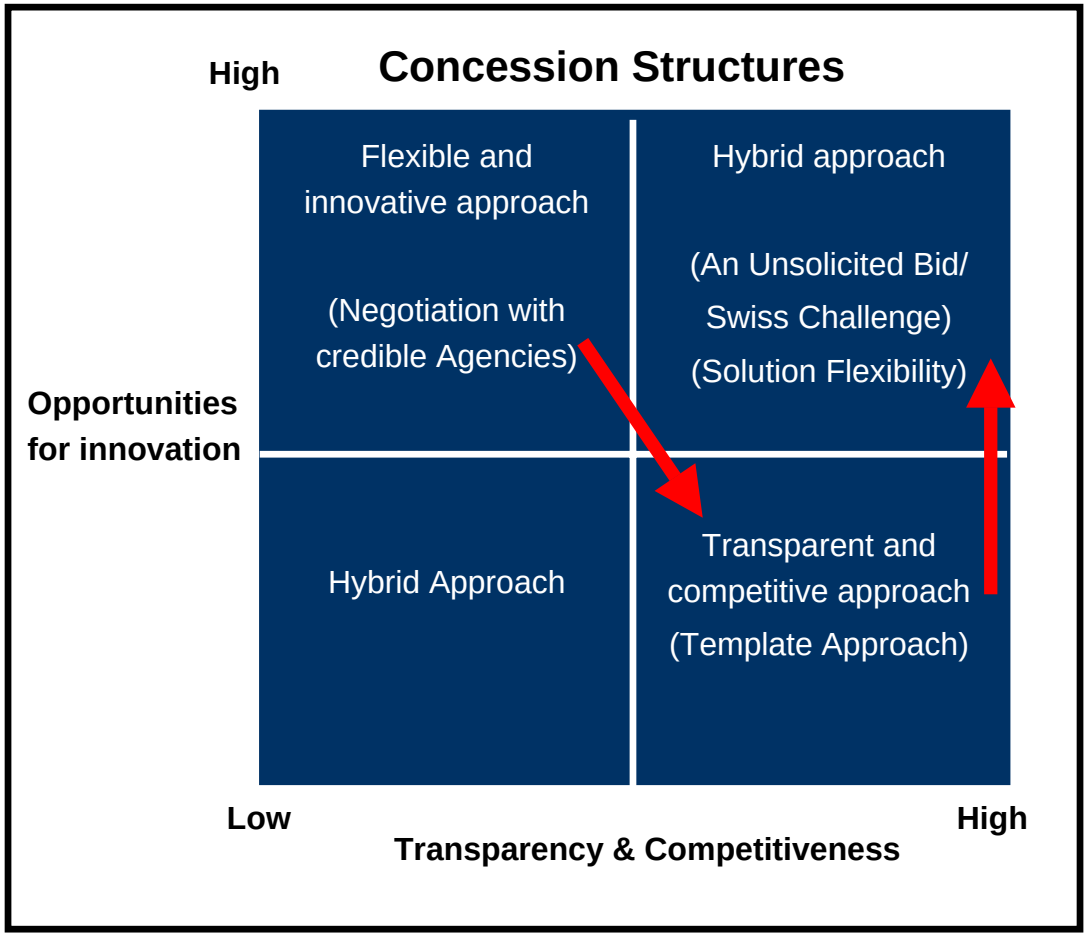
Balancing Risks

- From a public perspective it would be ideal if all project risks can be domiciled with the private sector
- However, risk transfer has to be weighed against
  - Ability of the party to absorb the risks
  - Economic cost
- Assessment of project risks, their correct assignment and appropriate mitigation are crucial to deliver an <u>economically efficient project</u>

Risk & Return are two sides of the same coin

The Concession Agreement

- Early BOT projects were developed as Joint Ventures between the State or Central Governments and private sector
- In the absence of specific enabling legislation, the Concession Agreement provided the required regulatory framework
- The Concession Agreements reflected the negotiated position between the agencies involved
- The project parameters as well as the concession structures of these "early" projects reflected the limited experience of PSP and were often less than optimal



- Subsequently, "Model" Concession Agreements are being developed resulting in increasingly standardized concession structures for BOT projects across sectors

… 2

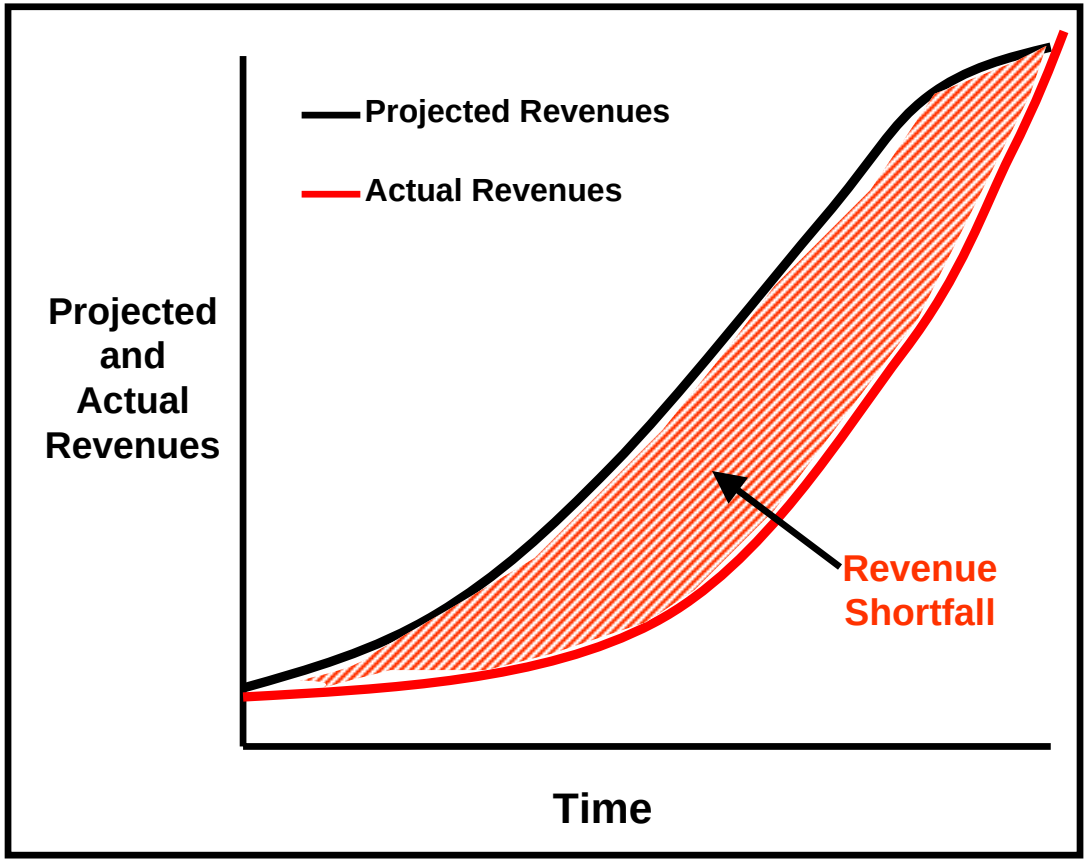
- This “Template” approach has lead to a greater familiarity amongst the private sector developers and financiers - reducing the turnaround time for both bidding and project financing
- Further, it has simplified the award and selection process making it both transparent and competitive
- However, despite the merits of the current system, it is increasingly being suggested that the process of project definition allow for a flexibility of approach by the bidder
- The Hybrid approach, while being more subjective, ensures flexibility in design and project structuring
- The subjectivity can be largely mitigated by ensuring wide representation on the selection committee – and substantial opportunities for debate before finalization
- Further, a more rigorous Rewards/Penalties regime ensures the delivery of the project to cost, quality and time - and subsequently the maintenance of performance standards and service levels

Regulation & Dispute Resolution

- Implementation and regulation are usually undertaken by the same government agencies resulting in the overlapping of responsibilities and a possible conflict of interest
- The time and costs involved for arbitration are often high. A more certain and swift dispute resolution mechanism may reduce perceived risks for private investors
- In light of this, it is essential to introduce an independent regulator with powers to resolve disputes expeditiously

User Fee

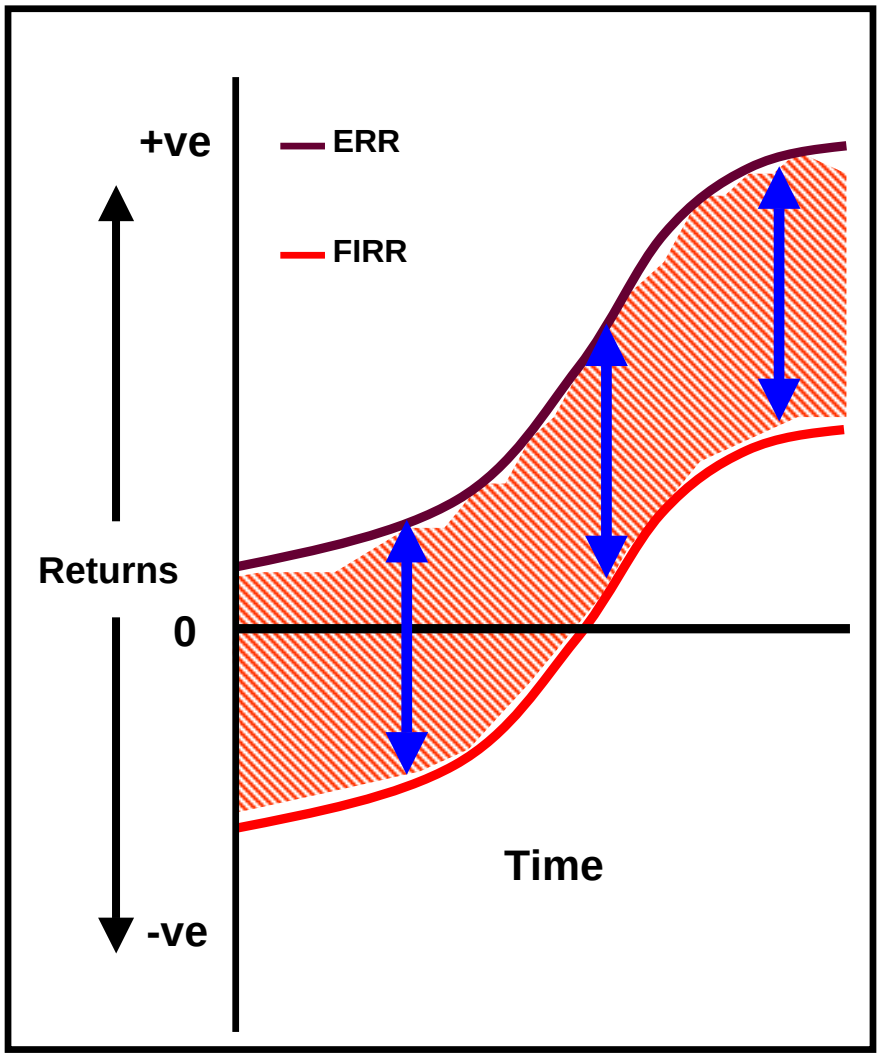
- User fee is the part of the savings that are shared with the service provider
- There are difficulties in Collecting User Fee
  - Low “Willingness to Pay”
  - Limitations in collecting Direct Fee
  - A slow user learning curve
- Project companies must therefore try and access indirect sources of revenue



Experience indicates that initially the Actual collections fall short of the Projected income

Capturing Economic Rent

- It has been observed that the economic benefits of infrastructure facilities often outweigh the financial returns to an investor
- In order to make an infrastructure project more attractive to the private sector, economic benefits can be captured by way of indirect collections for:
  - Ensuring benchmark returns
  - Providing potential upside to investors
- Indirect Collections may include:
  - Betterment levy
  - Revenue from Concessions for real estate development and other economic activities
  - Access to right of way for advertising etc.



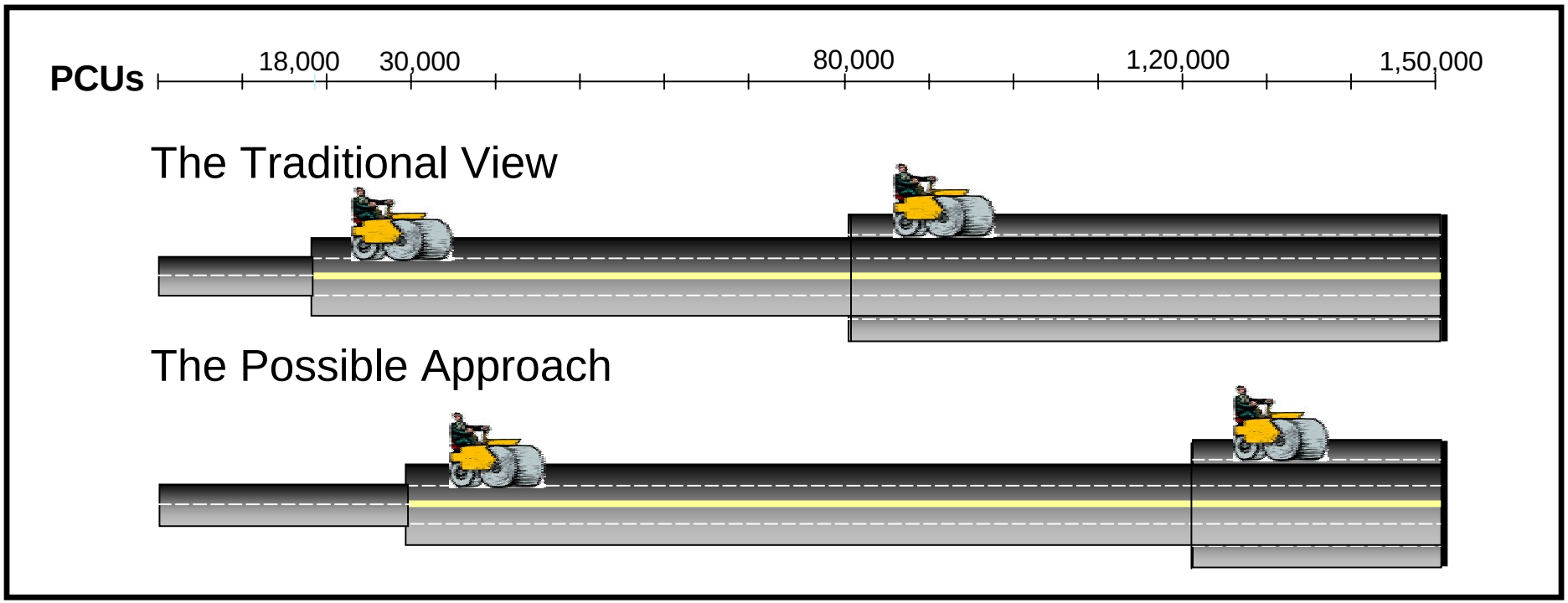
Instances of Capturing Economic Rent

- Land Development Rights have been included in the Concession Agreement for the NOIDA Toll Bridge Company Limited (NTBCL)
  - NTBCL has 65 acres of land in Delhi and 34 acres of land in NOIDA
  - Owing to the construction on the Bridge, value of this land has increased, making it amenable to commercial development
- Revenue from Advertising rights has been allowed in the Concession Agreement for East Coast Road
- The Concession for the New Tirupur Area Development Company Limited (NTADCL) provides for the following outside the regulated return regime:
  - Revenues from Right of Way exploitation for telephone cables, advertising etc.
  - Revenues from the sale of Recycled water

Innovation in Design/Solution

- The Cost of developing infrastructure is similar across the world, however, the ability to pay is not
- Therefore, the optimal design solution will vary according to the situation and the available resources

Road Design - Capacity



Some examples of Innovative Design

- The Concession for the up gradation of East Coast Road provided for addition in capacity and not conversion of a two lane facility to a four lane road
  - Tamil Nadu Road Development Company Limited, the Project Company, added capacity through value engineering and provision of safety features. It included amongst others:
    - Geometric correction of critical curves
    - Construction of bus bays and truck terminals
    - Widening only the high-density corridors
    - Overtaking lanes in specific sections
- The design capacity of the Tirupur Water Supply Project is 185 Million Litres/Day (MLD). Provision for additional capacity would have required additional off take and pipeline infrastructure. The capacity of the Project can be increased to 215 MLD by recycling water for industrial use with marginal capital investment

Environmental & Social Impact Mitigation

- The Environment and Social Impact Assessment (ESIA) is an important process in the project development effort as an infrastructure facility affects both the environment and the population in the vicinity
- The key objective of ESIA is to delineate measures to minimise the negative environmental and social impact and enhance the positive impact
- Best Practices include:
  - Identification and customization of mitigation measures for each impact for each affected group
  - Ensuring that impacts are not borne disproportionately by one group
- Though ESIA costs less are often less than 2% of the total project cost, it is generally not accorded the attention it deserves - but has a significant impact on project sustainability

Some instances of successful mitigation

- Vadodara Halol Toll Road Project
  - The Project Company, Vadodara Halol Toll Road Limited (VHTRL) undertook a voluntary relocation of temples, schools, and environmental infrastructure
  - VHTRL implemented the covenants of the Environmental and Social Management Plan by
    - Creating wetlands
    - Ensuring compliance with emission norms
    - Restricting hazards to neighborhood communities
    - As part of social rehabilitation measures
      - VHTRL paid out rehabilitation assistance to compensate for the difference between the government notified acquisition price and the market price
      - VHTRL created additional facilities such as pedestrian subways, compound walls and provided additional houses for relocation of communities
- Delhi NOIDA Toll Bridge Project
  - The Project Company, NOIDA Toll Bridge Company Limited (NTBCL) constituted a Citizens Environment Committee comprising eminent scientists and members of the locality to work with and alleviate the environmental concerns of the citizens
  - The Project used only dredged river sand, instead of earth fill by road transportation, preventing dust and noise pollution from 700 –800 trucks/day

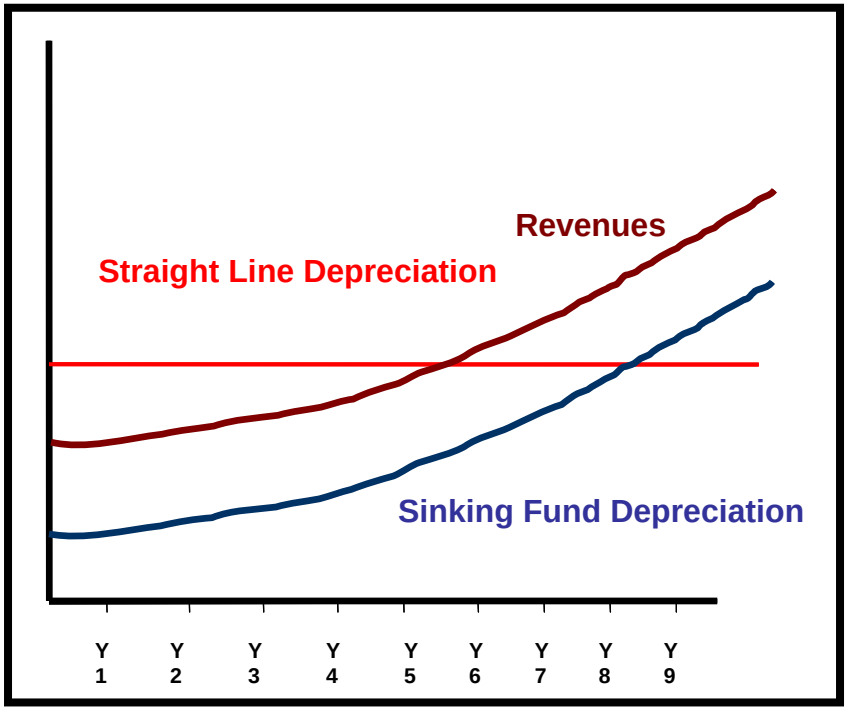
Project Financing

- Lenders have varying levels of comprehension of technical matters and hence sometimes assess the projects as a at top of band risk
- Only a few projects in India are able to secure debt of more than 10 years
- Equity investments from pure financial investors in the physical infrastructure sector is negligible, there is need for encouraging participation by such investors. They include:
  - Insurance and Provided Funds
  - Private Equity Funds; Current funds lack appetite for construction period equity and only invest in operating projects
- Availability of Exit for Sponsors remains the key
  - Concession Agreements must allow for partial exit of the sponsor after commercial operations

The Need for Innovative Financial Products

- Take Out Financing
  - Banks are unable to loan funds to infrastructure projects beyond certain tenor thresholds
  - Bank Loan maturities may not match cash flow profile of the Project
  - Therefore at the end of the Bank Loan maturity, the loan is ‘Taken Out’ by another financial institution to prevent asset – liability mismatch
- Sub Debt
  - To free regulatory capital, enabling the promoters to take higher exposure in the Projects
  - Being subordinated in nature, it provides greater comfort to the Lenders
- Deep Discount Bonds
  - To match the cash flow profile of the projects and to improve the Debt Servicing
    - Deep Discount Bonds have very low or no coupon and are issued at a discount on the face value and generally issued with call provisions
    - The investor receives a bullet payment on maturity

- Sinking Fund Depreciation
  - Traditional method of depreciation restricts payment of dividend till certain asset-related and lender covenants are met
  - This leads to shareholders not being able to draw early dividends, making projects less attractive to investors
  - The sinking fund method allocates more depreciation to the later years



- Securitisation
  - Securitisation is a funding strategy that involves funding based on asset value and cash flow characteristics of the asset pool which are not supported by the firm's equity
  - Funds can be made available to the sponsors of the mature Projects that would otherwise not have been possible - allowing for re investment in new projects

Use of Innovative Financial Instruments

- NOIDA Toll Bridge Project
  - NTBCL was funded by a mix of equity, term loans from Banks and Financial Institutions, World Bank line of credit through IL&FS, the issue of Deep Discount Bonds and Fully Convertible Debentures
  - Sinking Fund Depreciation was used to ensure early returns to shareholders
  - Take Out Financing arrangements were made to meet the project cash-flow profile of the Project
- North Karnataka Expressway Project
  - North Karnataka Expressway Limited (NKEL), the Project Company issued sub debt to banks increasing their effective spread
  - The cash flows of NKEL were securitised after accounting for O&M expenses leaving the sponsors with significant surplus to invest and develop other infrastructure projects

The Agenda

- The Need for an independent Regulator
- Flexible Concession Structures and provision for Unsolicited Bids
- Flexibility in Design/Solution to be vested with the Private Sector
- Need for an National Infrastructure Policy
- Need for attracting a new class of Financial Investors in the Sector

Thank You