

Public-Private Infrastructure Advisory Facility (PPIAF)



PPPs: An Introduction

Infrastructure PPPs

- ***Why infrastructure?***
- ***Why the private sector?***
- ***What are PPPs?***

Infrastructure Provides Basic Services

Billions lack access to services...

- **2.5 billion** people lack access to sanitation services
- **1.6 billion** live without electricity
- **1 billion** lack access to roads
- **900 million** drink unsafe water



Needs are growing rapidly...

- In the next 25 years, another 2 billion people will be born
- 97% in developing countries
- Needing water, electricity, and transport

Improved Infrastructure Helps Reduce Poverty



Paved roads double girls' school attendance (Morocco)



Clean water reduces child mortality by 55% (India)



72% of children with **electricity** at home read in the evening, vs. 43% of those without (Colombia)

But Infrastructure Needs are Huge – in Asia

Asia's Total Infrastructure Investment Needs by Sector, 2010-2020 (in 2008 \$million)

Sector/Subsector	New Capacity	Replacement	Total
Energy (Electricity)	3,176,437	912,202	4,088,639
Telecommunications	325,353	730,304	1,055,657
Mobile phones	181,763	509,151	690,914
Landlines	143,590	221,153	364,743
Transport	1,761,666	704,457	2,466,123
Airports	6,533	4,728	11,260
Ports	50,275	25,416	75,691
Railways	2,692	35,947	38,639
Roads	1,702,166	638,366	2,340,532
Water and Sanitation	155,493	225,797	381,290
Sanitation	107,925	119,573	227,498
Water	47,568	106,224	153,792
Total	5,418,949	2,572,760	7,991,709

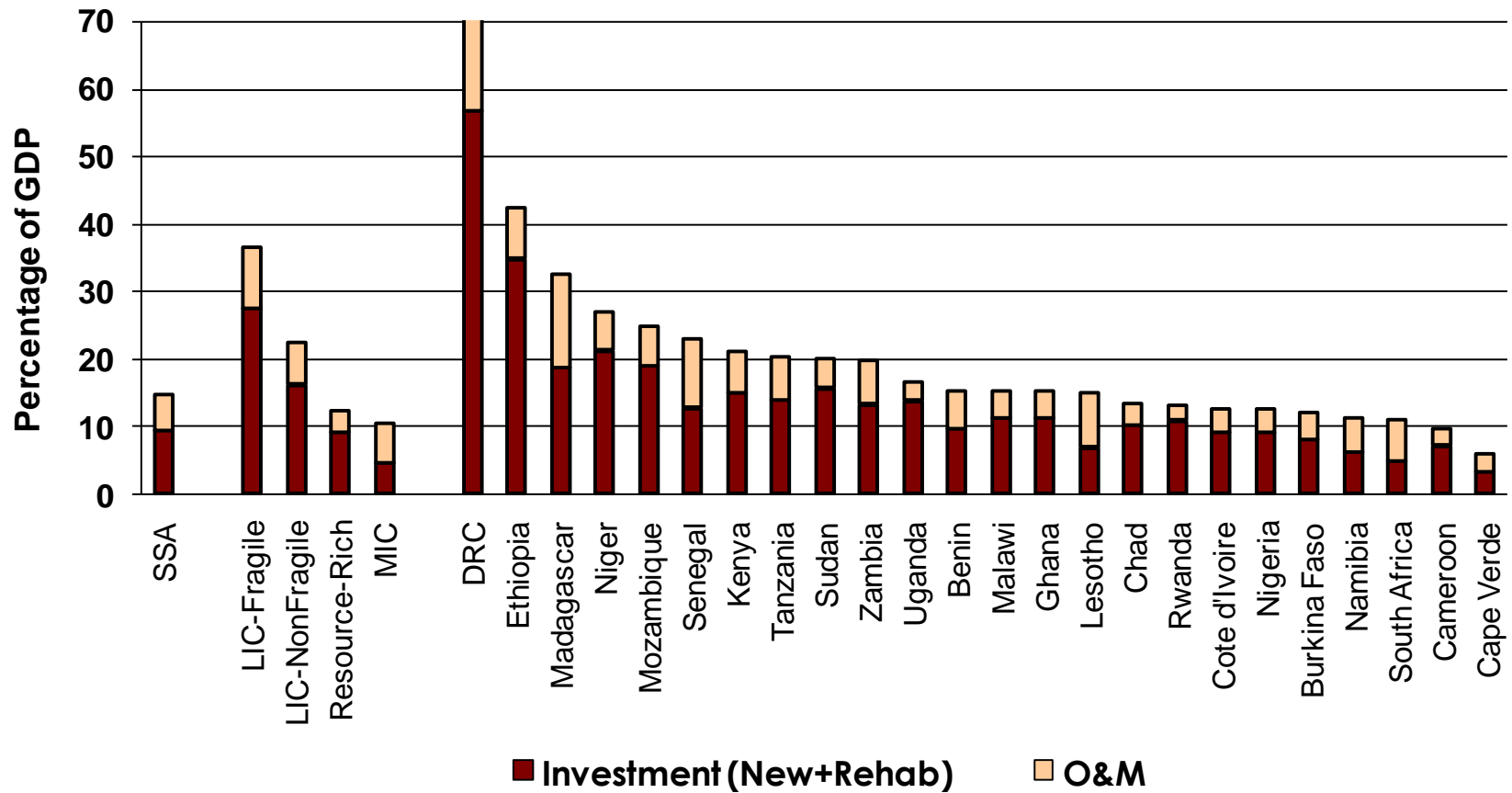
\$ = United States dollar.

Sources: ADBI (2009); Bhattacharyay (2008).

Cited in ADB and ADBI 'Infrastructure for Seamless Asia' (2009)

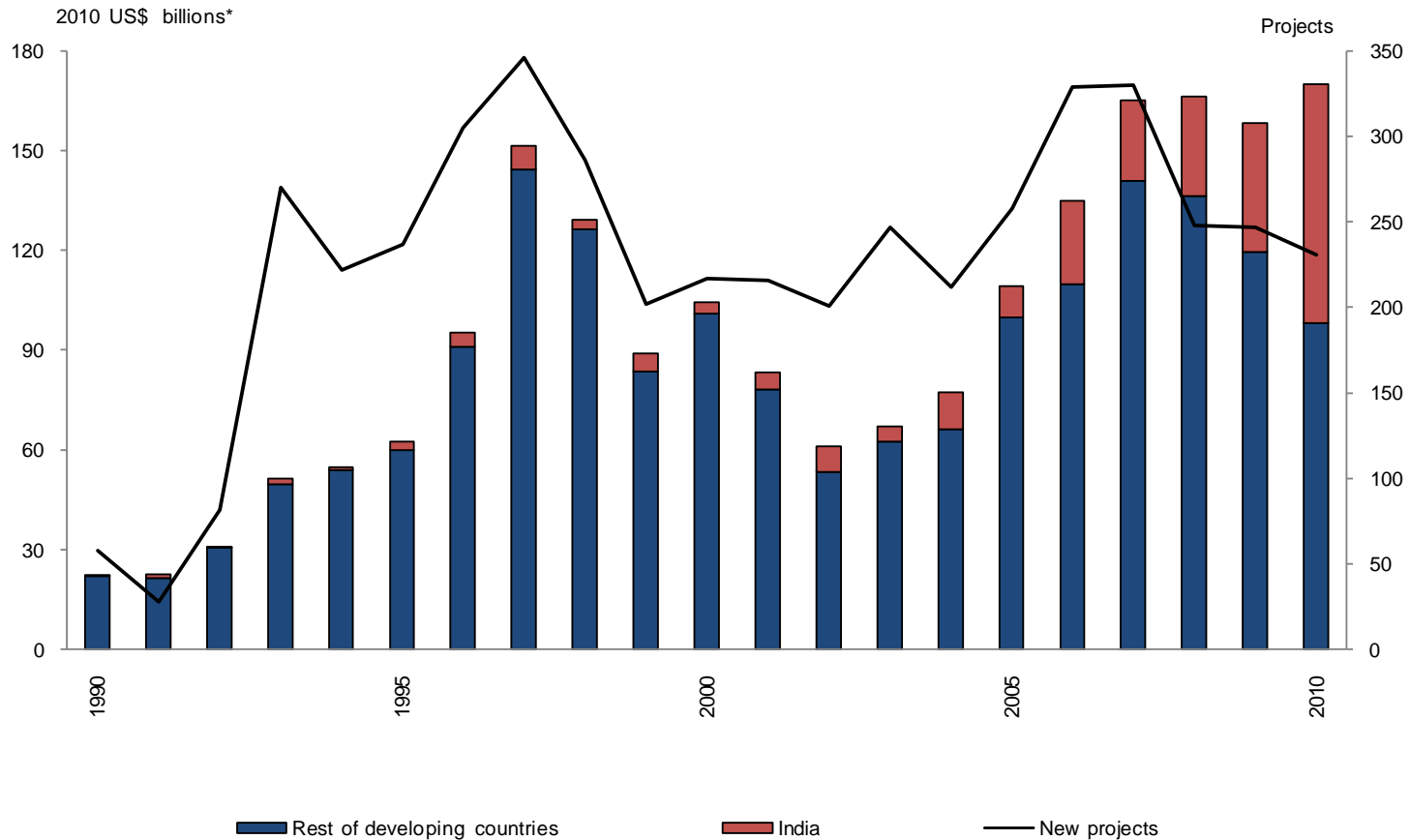
...and in Africa

Africa Infrastructure Investment Needs as % of GDP



Global Private Infrastructure

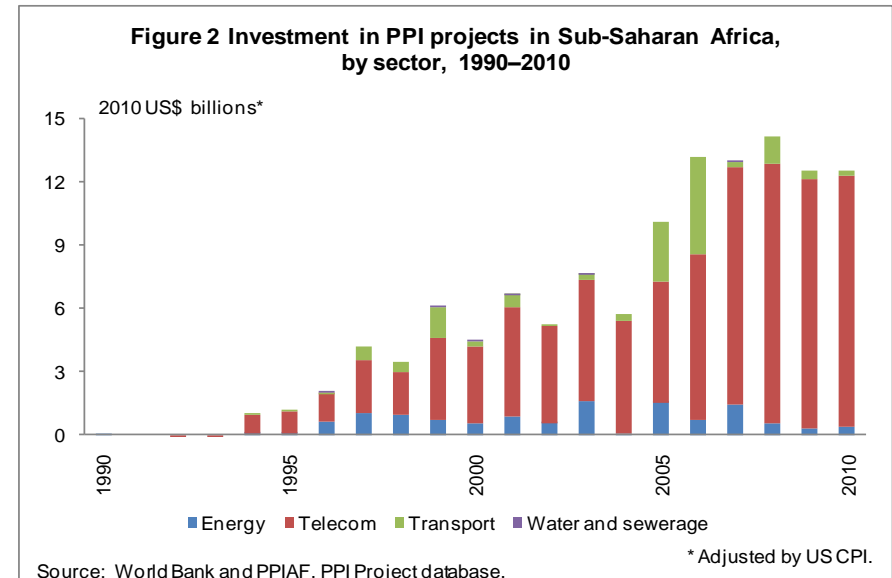
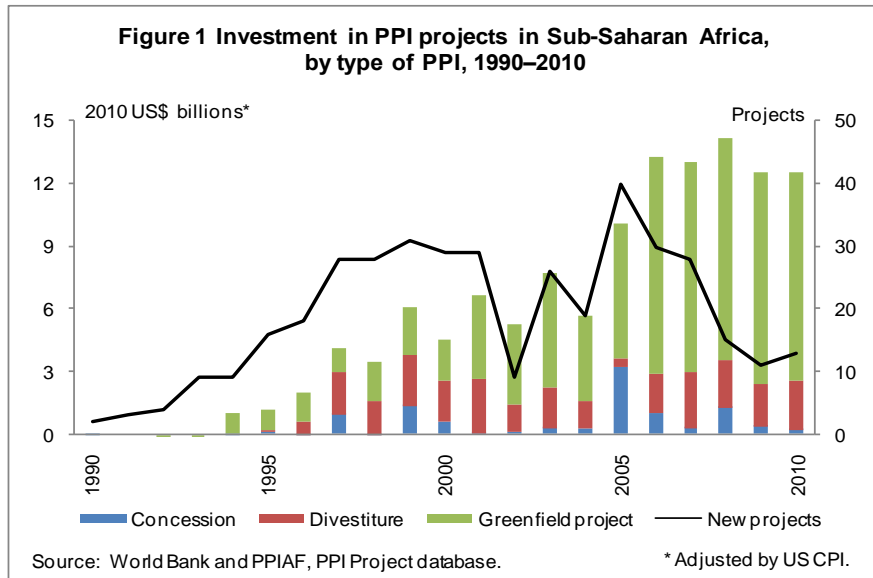
Investment in new PPI projects in developing countries, 1990–2010



Source: World Bank and PPIAF, PPI Project database.

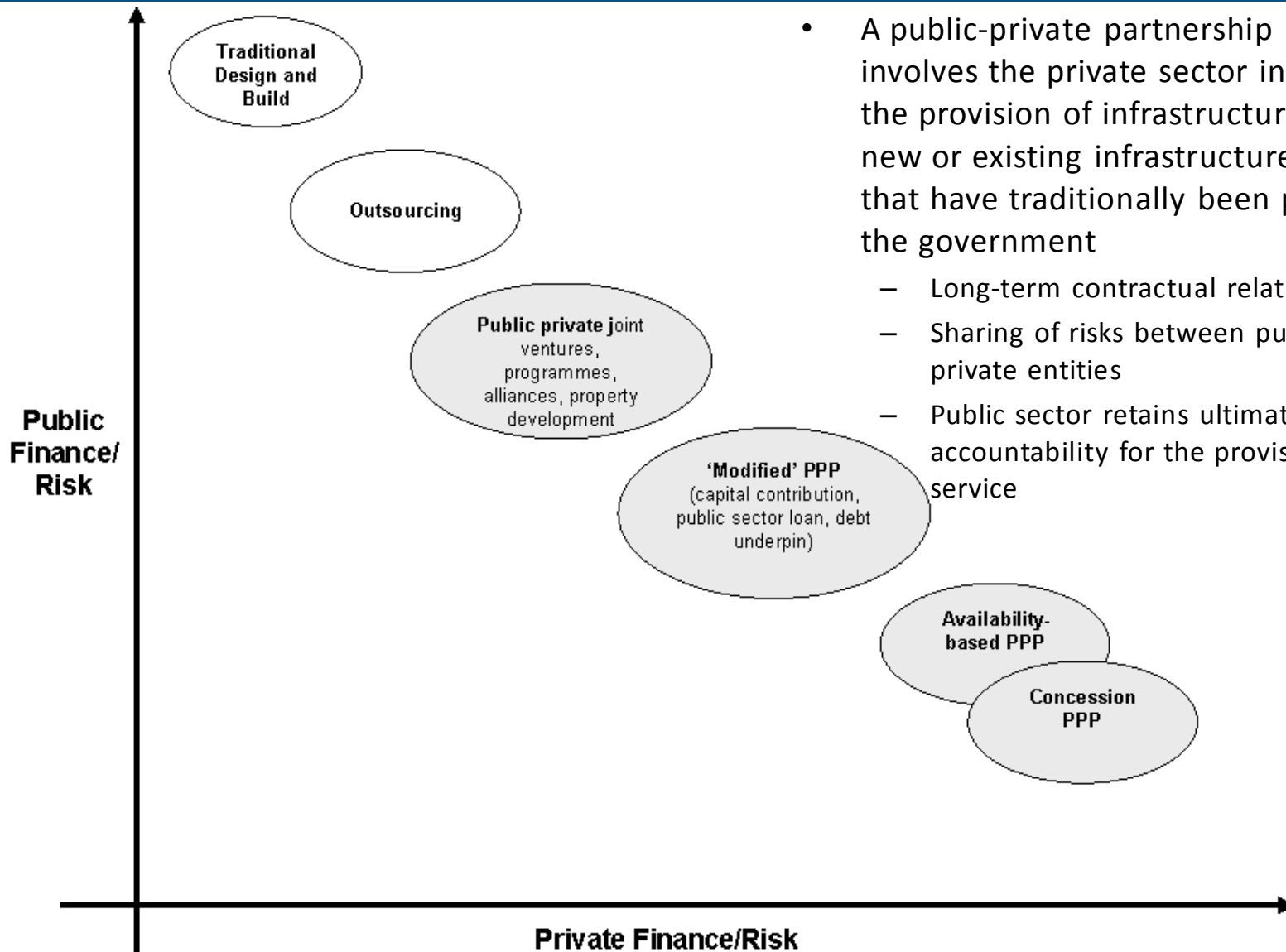
* Adjusted by US CPI.

...and in Africa



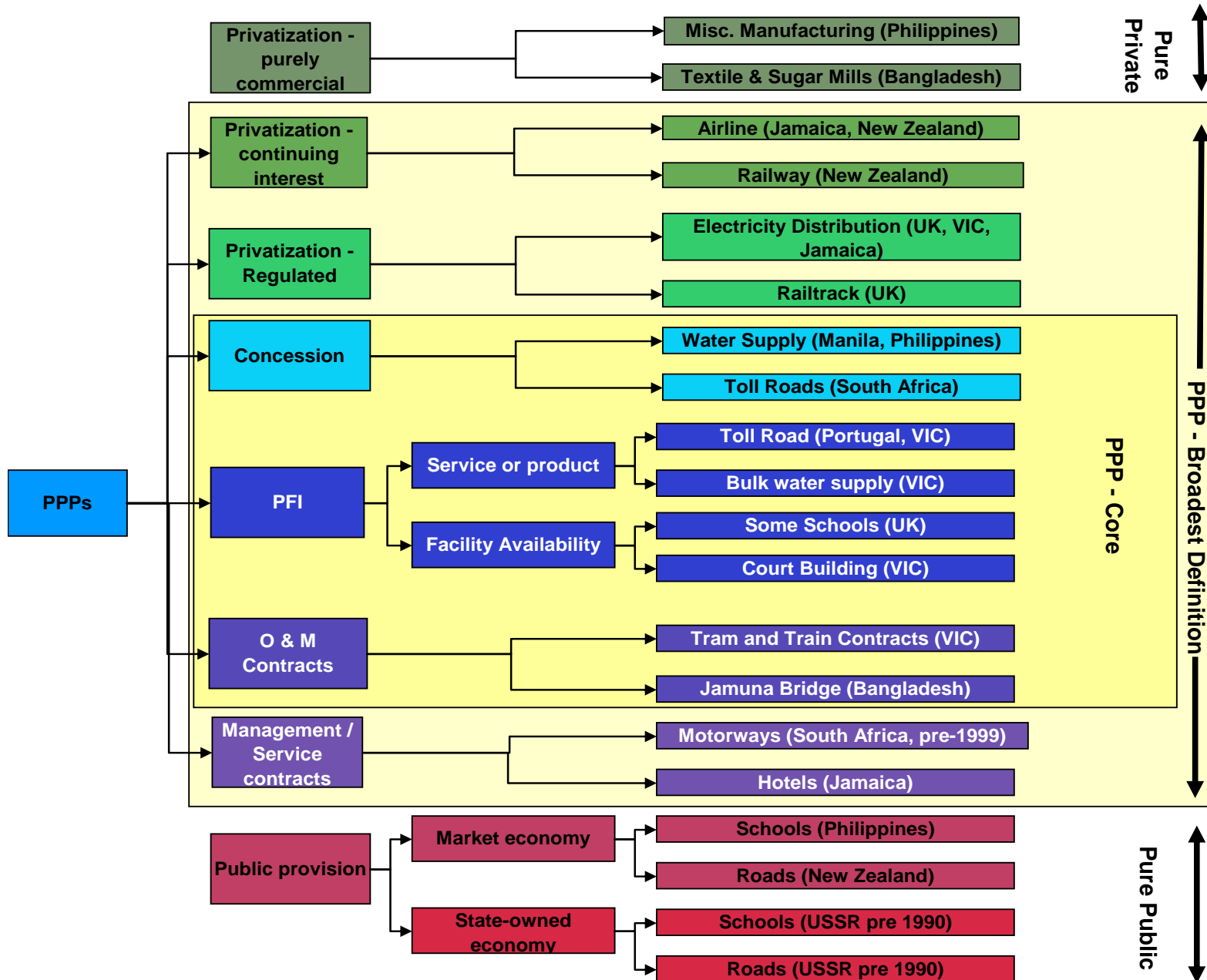
- 79% of regional investment concentrated on greenfield projects (BOT, BOO, merchant, or rental assets)
- Nigeria and South Africa accounted for 41% of regional investment in 2010
- Telecom dominates sectoral investment (95%), mostly in mobile operators
- Energy and other sectors lag: only 240MW of greenfield power plants

So, what are PPPs?



- A public-private partnership (PPP) involves the private sector in aspects of the provision of infrastructure assets or of new or existing infrastructure services that have traditionally been provided by the government
 - Long-term contractual relationship
 - Sharing of risks between public and private entities
 - Public sector retains ultimate accountability for the provision of the service

Another View of PPPs



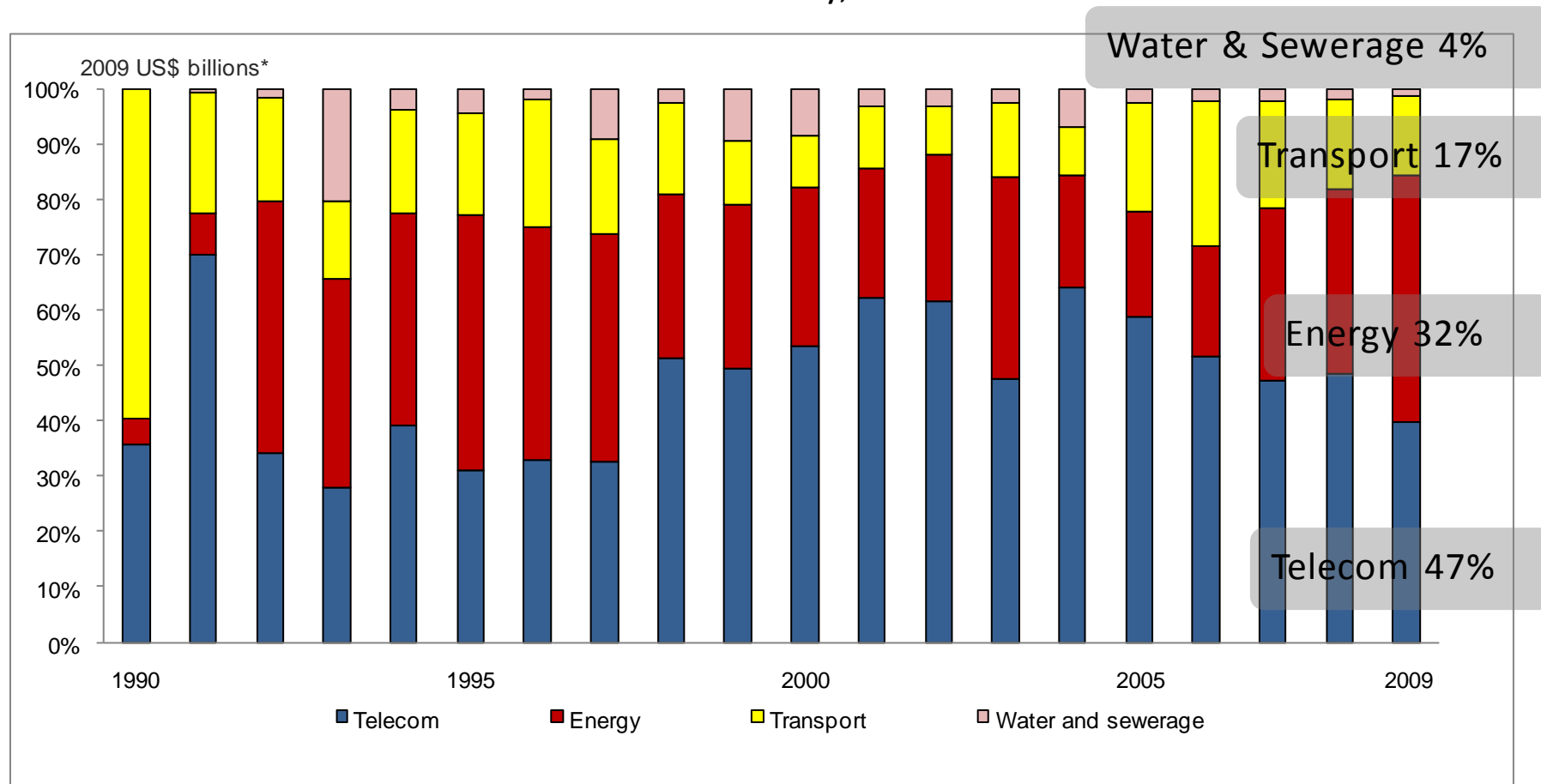
PPPs: Value for Money and Greater Efficiency

- **Leverage private funds** and pool them with public resources
- Better **value for money** → efficiency and innovation
- **Spread financing** over the lifetime of the asset → relieving public budgets
- Improve **risk sharing** between public and private parties
- Boost sustainability and **innovation**
- Cut hidden costs of inefficiency by half in African **energy** sector
- PPPs force governments to look at **life-cycle costs** for services, and ensure long term sustainability and maintenance of assets



PPPs: Easier in Some Sectors than Others

Private investment commitments to PPP projects in developing countries, by sector of activity, 1990–2009

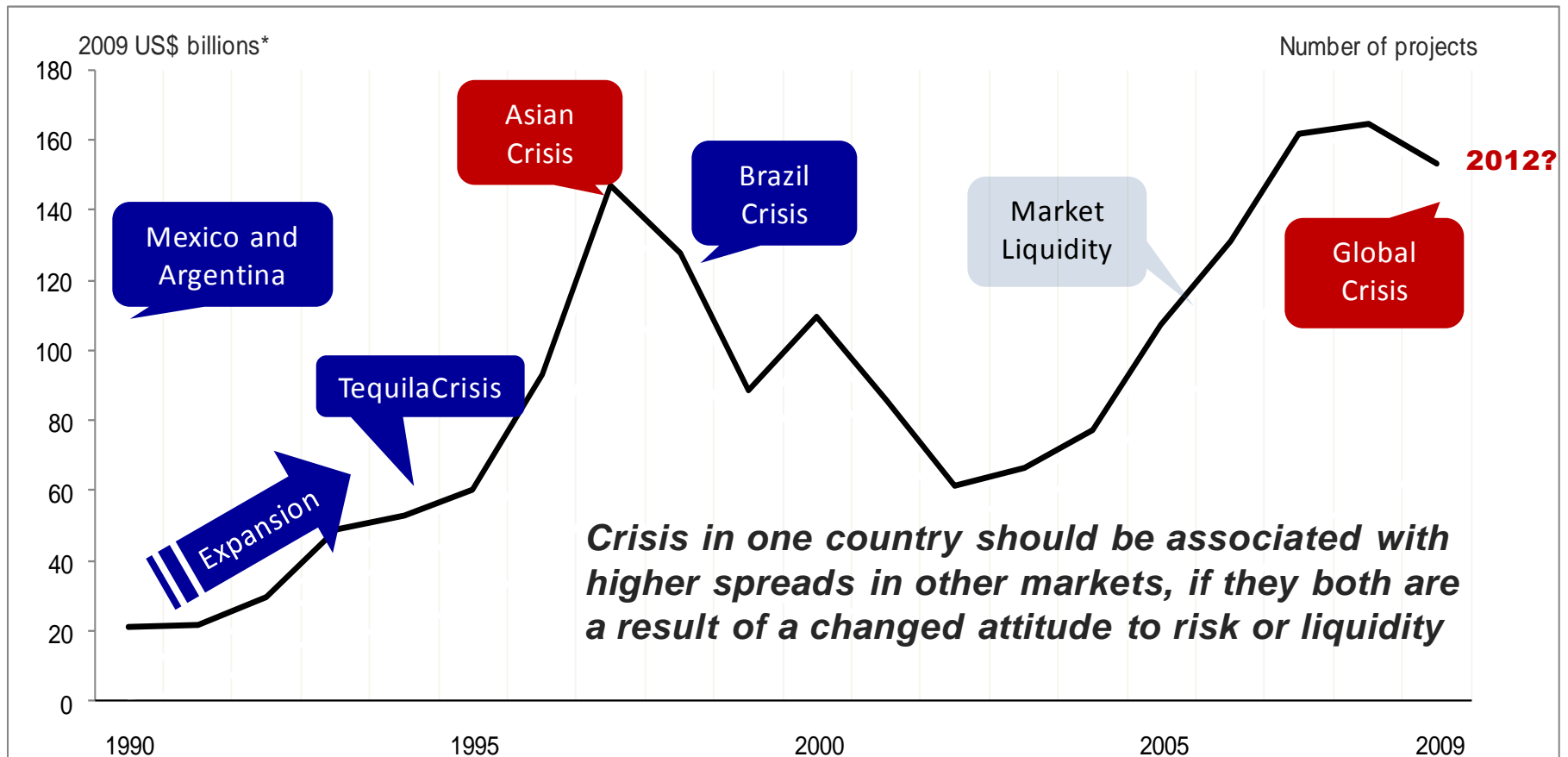


Source: World Bank and PPIAF, PPI Project Database

*Adjusted by the US Consumer Price Index

PPP Flows Vulnerable to Crises

Private investment commitments to PPP projects in developing countries, by sector, 1990–2009

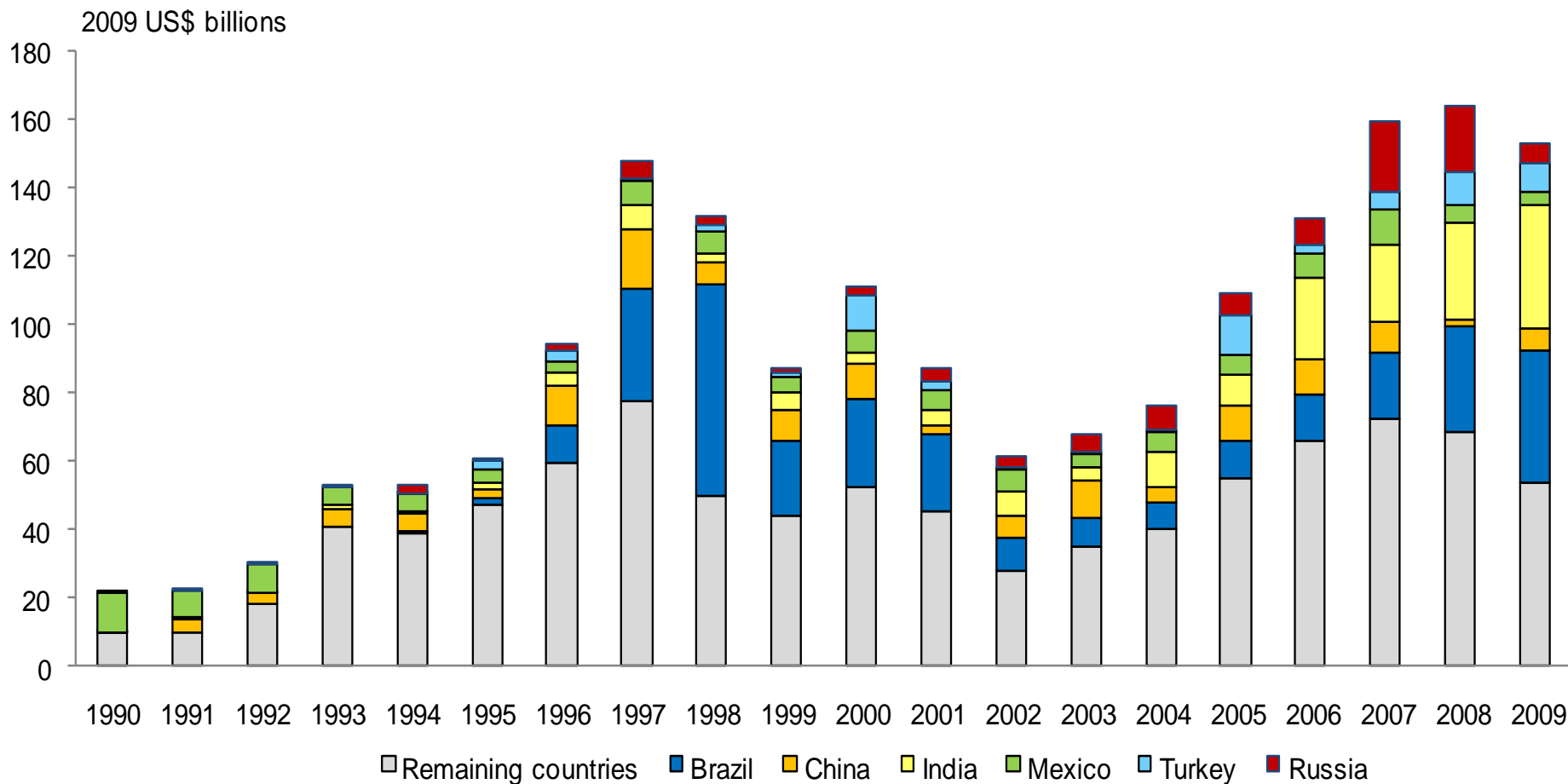


Source: World Bank and PPIAF, PPI Project Database

*Adjusted by the US Consumer Price Index

Concentrated in a Few Countries...

Top developing countries with investment commitments to private Energy, Transport, Water and Telecom projects, 1999–2009



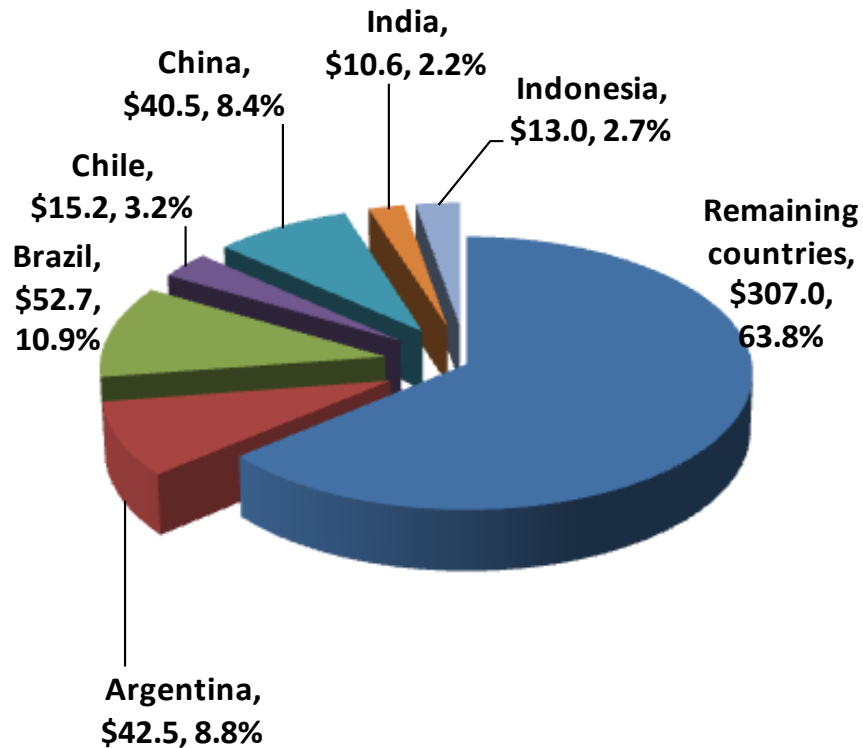
Note: Includes investment in projects reaching financial closure in 1990–2009.

Source: World Bank and PPIAF, PPI Project Database.

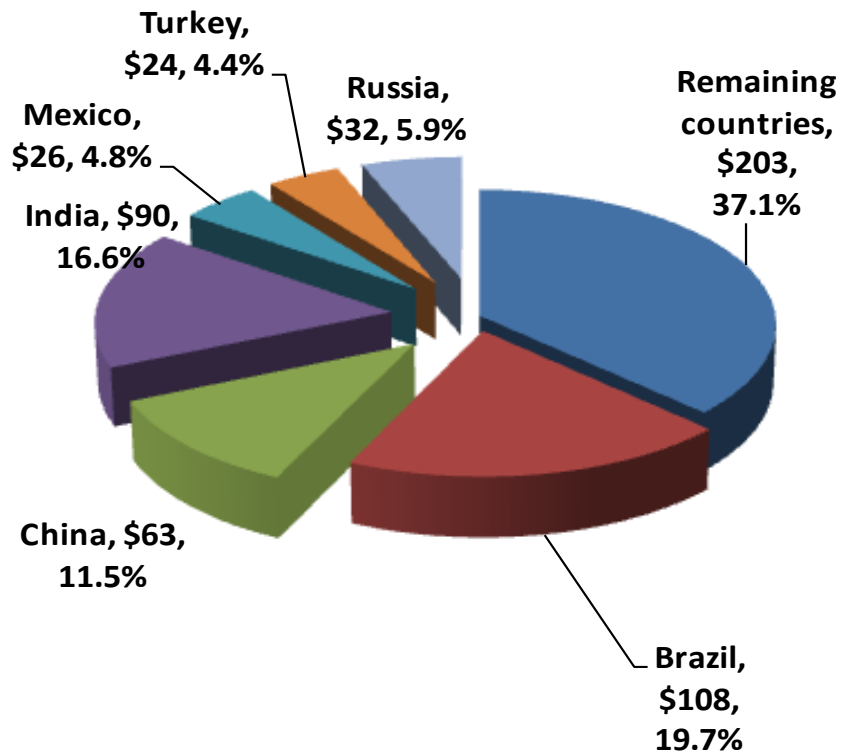
...Even Greater Concentration in Recent Times

Main Recipients of PPP Investment in Energy, Transport and Water 1990-2009

1990-1999 (Billions USD)



2000-2009 (Billions USD)



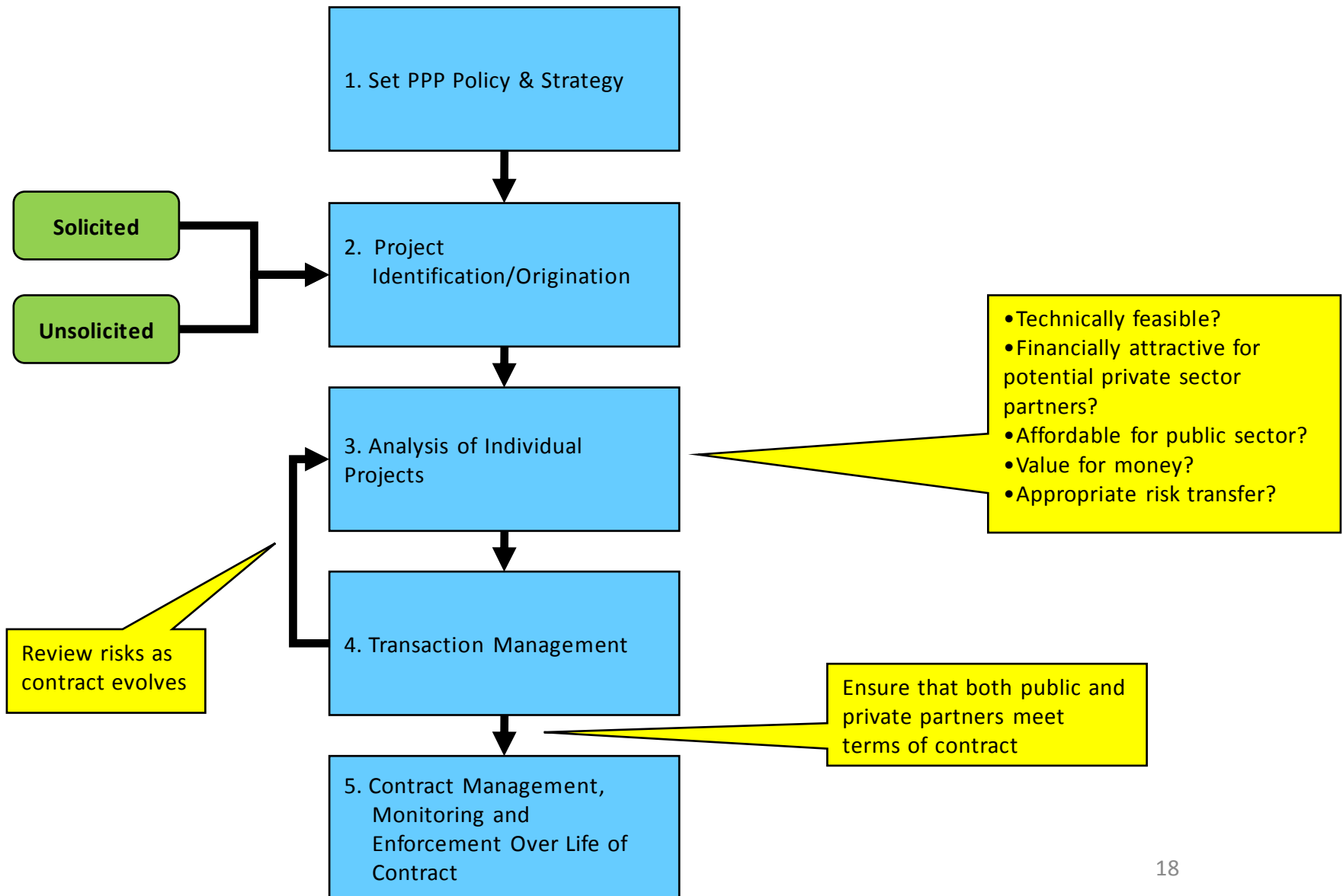
What is required to generate a pipeline of PPP projects?

PPPs Require...

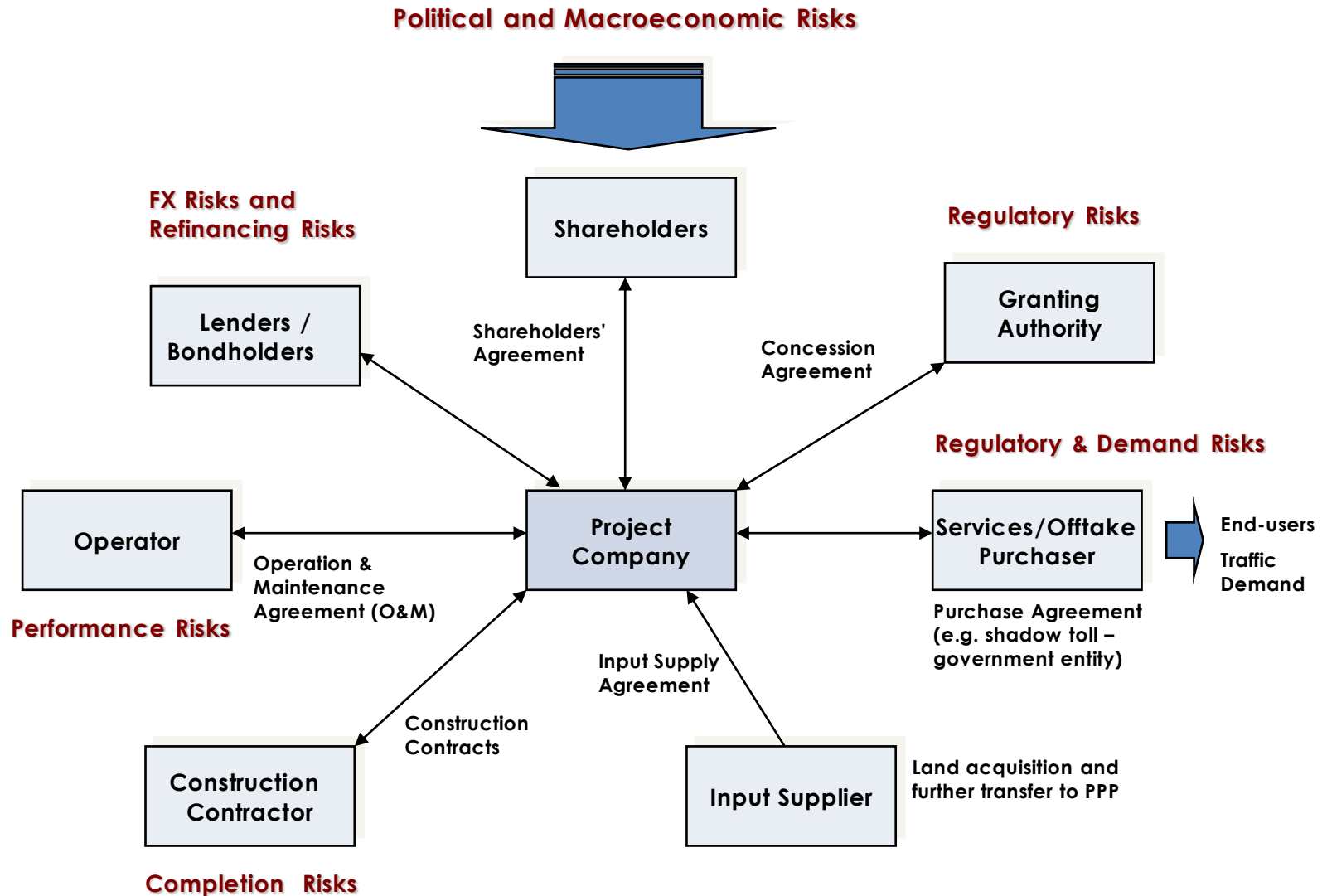
- **Political will sustained over time**
- **Ongoing political stability**
- **Clear enabling environment – PPIAF!!**
- **Technical capacity to develop and deliver projects**
- **Transparent procurement processes**
- **Clear allocation of risks**
- **Bankable project structures**
- **Investor interest**
- **Availability of financing**



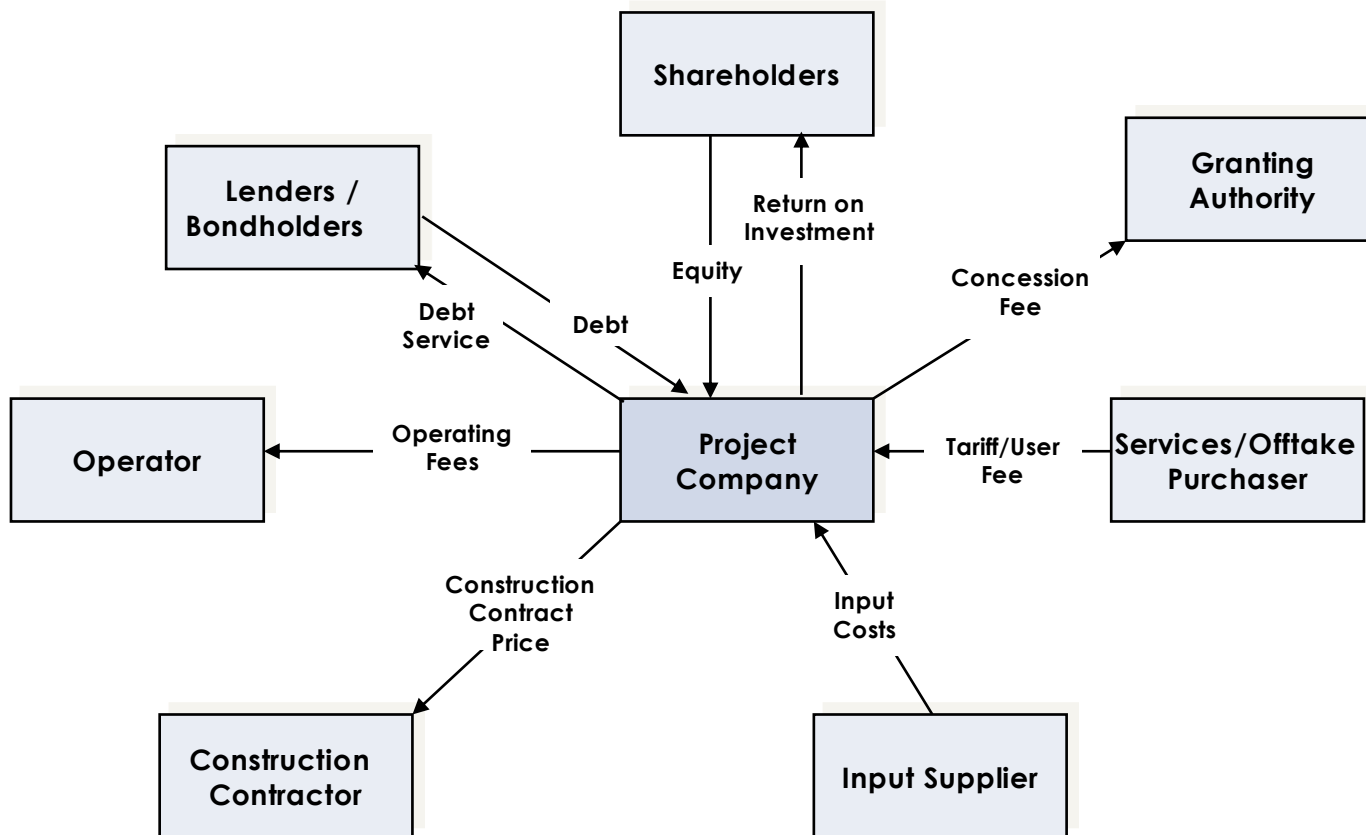
Complex to Deliver: PPP Lifecycle



Complex Structuring in PPPs



...and Funding

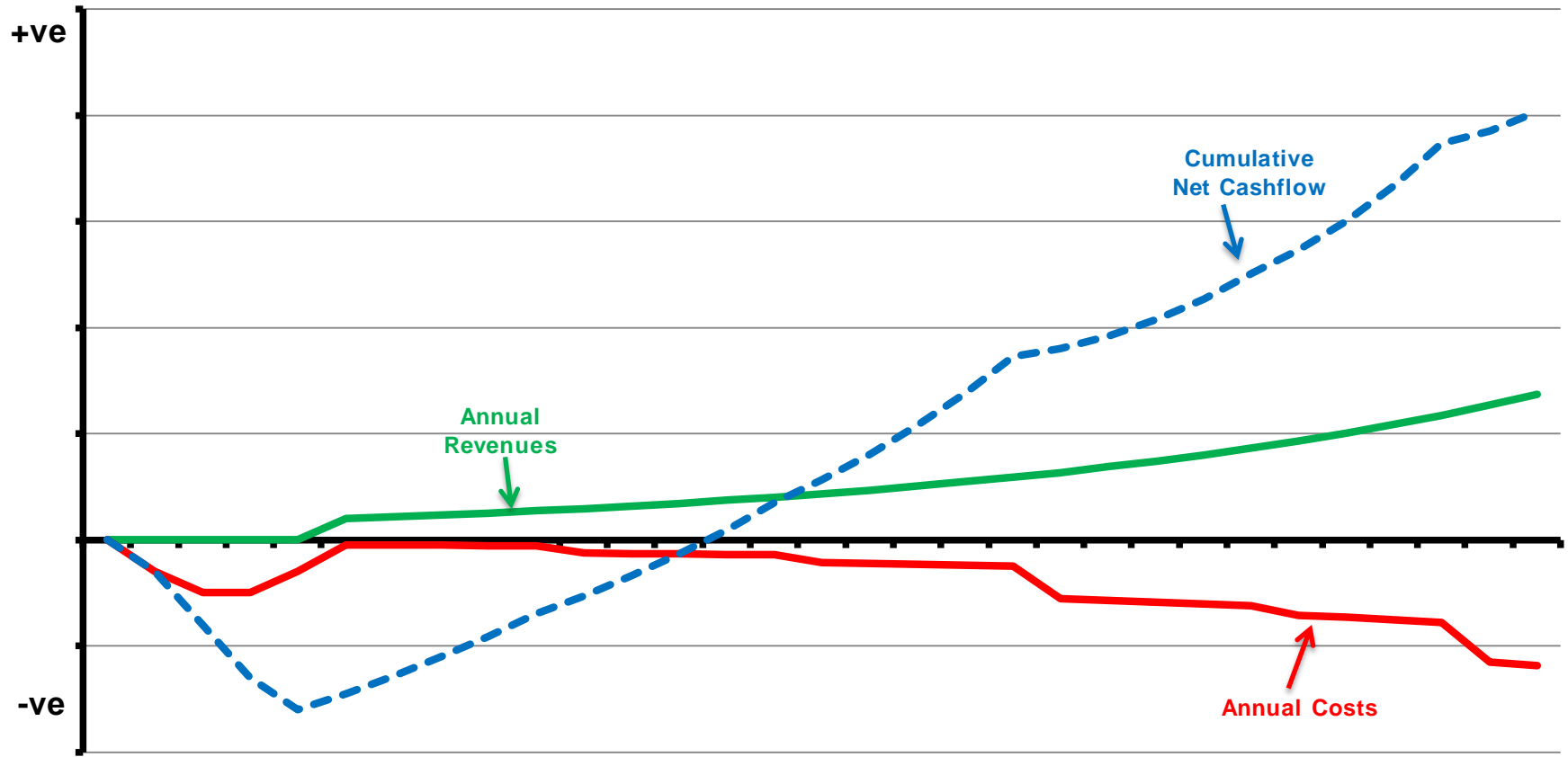


Allocation of Risks

	Political	Cost Increase	Environmental	Market	Development	Operation	Performance	Completion
Project Company	✓	✓	✓	✓	✓	✓	✓	✓
Grantor	✓		✓		✓			
Construction Contractor		✓	✓	✓	✓	✓		✓
Operator		✓	✓	✓	✓	✓	✓	
Offtake Purchaser				✓			✓	✓
Input Supplier			✓	✓		✓	✓	✓

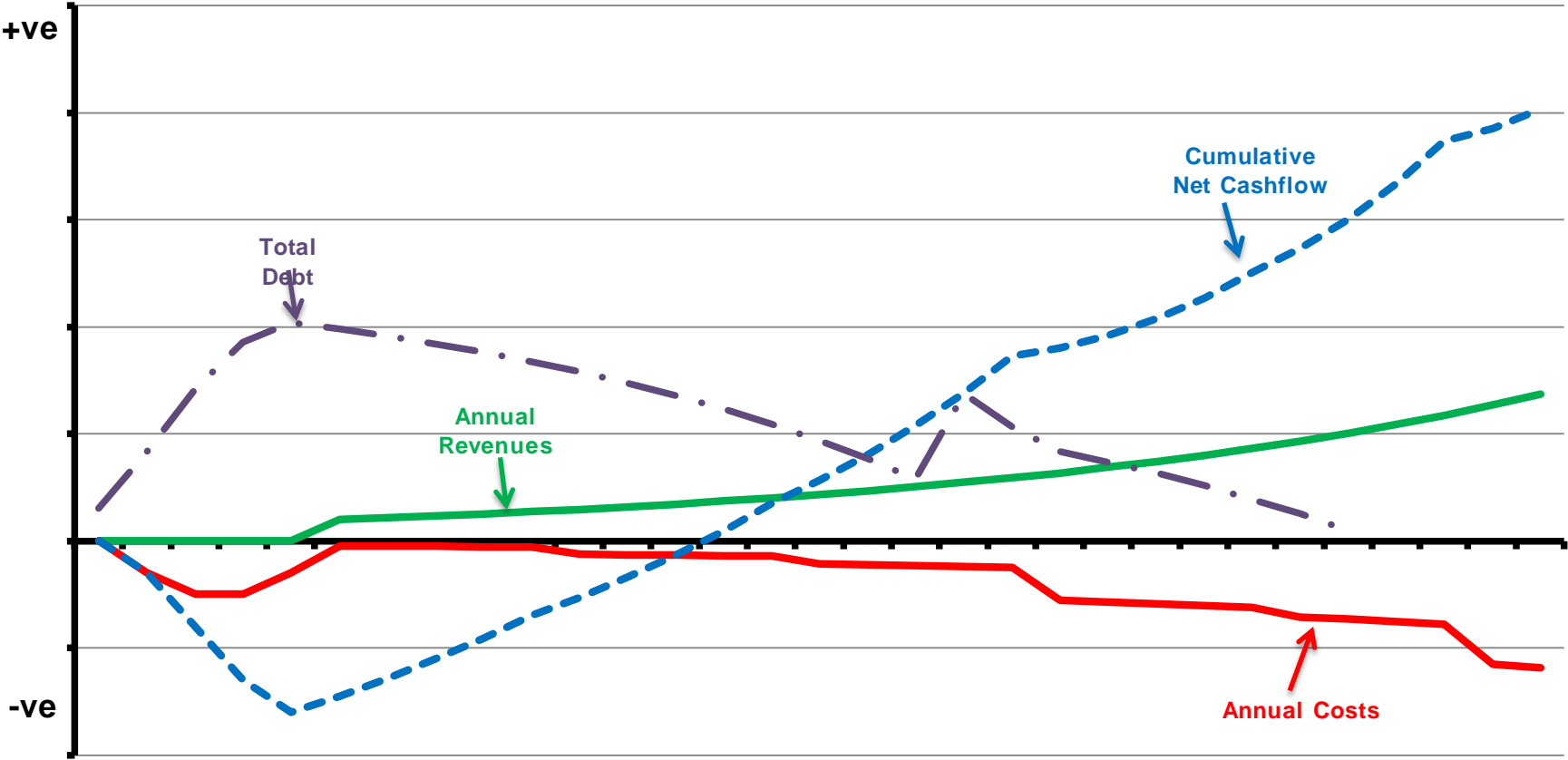
PPPs are very long term I

Typical PPP Cashflows

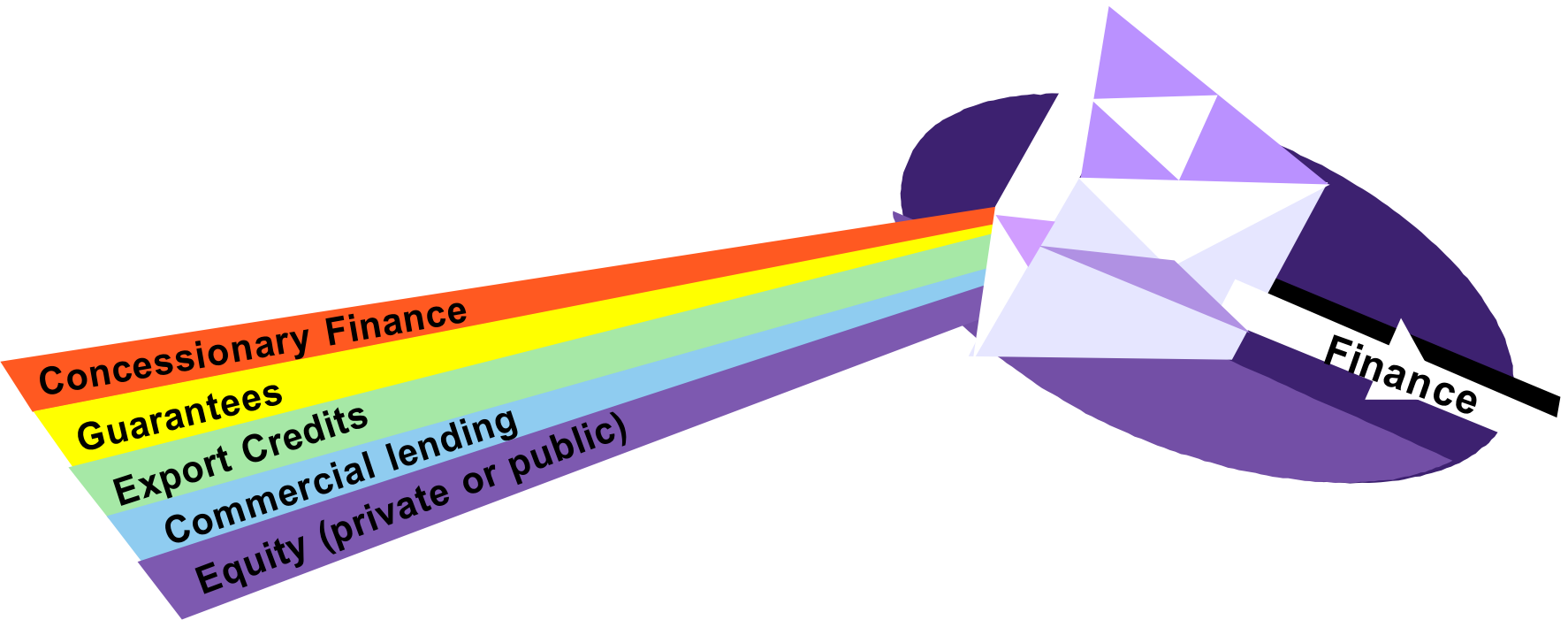


PPPs are very long term II

Typical PPP Cashflows

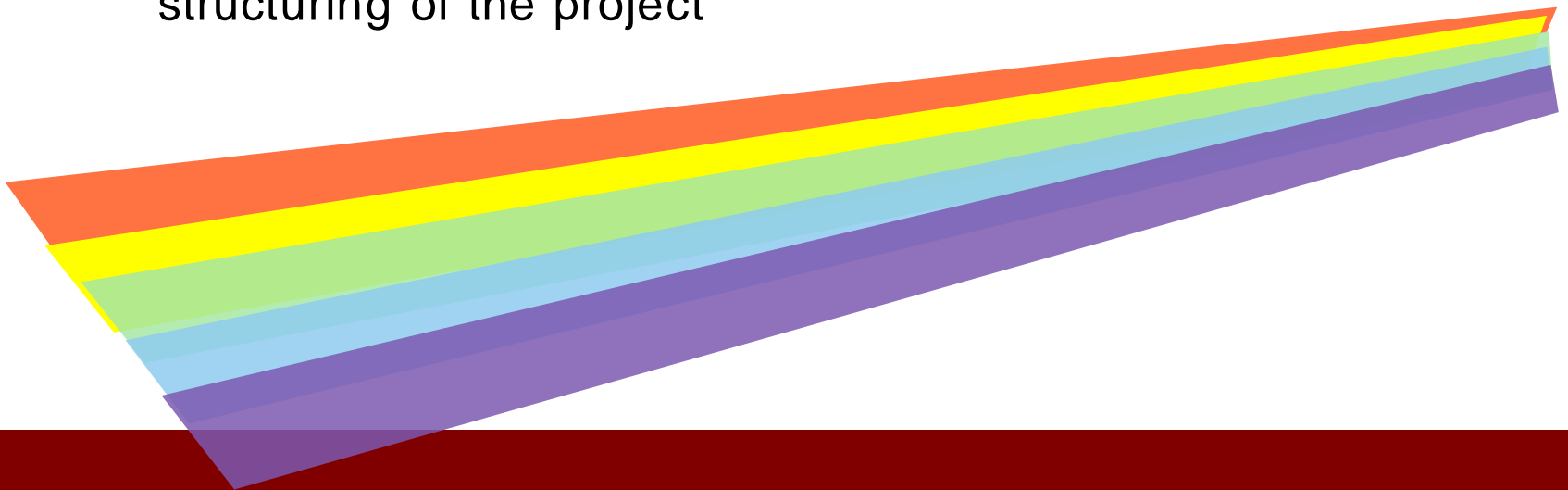


Spectrum of Financing Instruments



Financing Plan: Combining the Instruments

- Objective to raise the funds at least cost
 - with a repayment profile that matches the revenue stream
 - minimise exposure to currency devaluation
- Large number of factors to consider
- Can be a time-consuming and costly process
- ***THEREFORE***, most sponsors of large projects involve advisors at an early stage to assist in the financial structuring of the project



Financing Instruments

■ Private equity

- sponsors & contractors
- commercial arms of IFIs

■ Private debt

- commercial bank loans
- bonds

■ Support mechanisms

- export credits
- guarantees (IFIs)

■ Public equity

- Government
- parastatal
- public utilities

■ Public loans

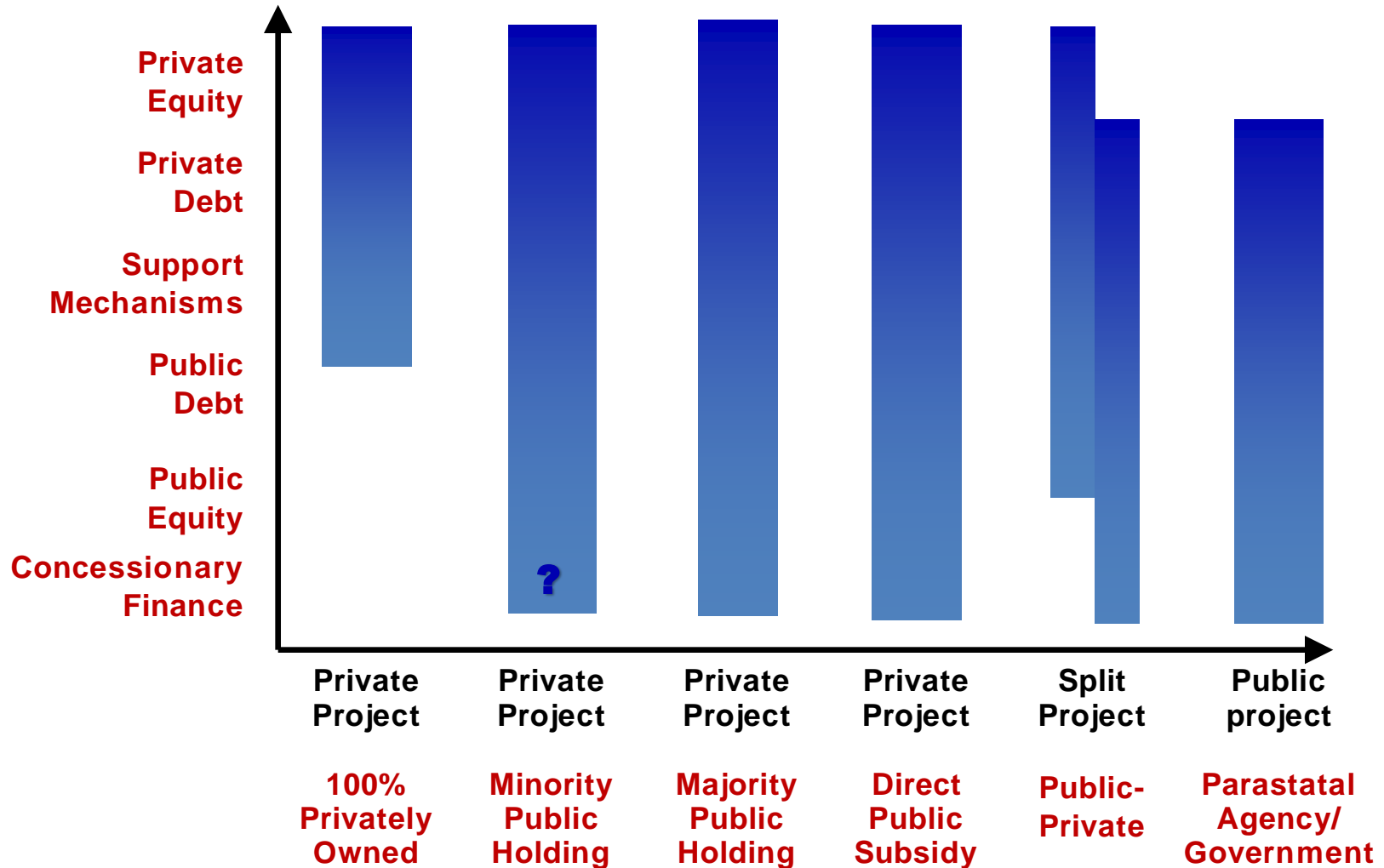
- Government
- parastatal
- public utilities

■ Concessionary (public) finance

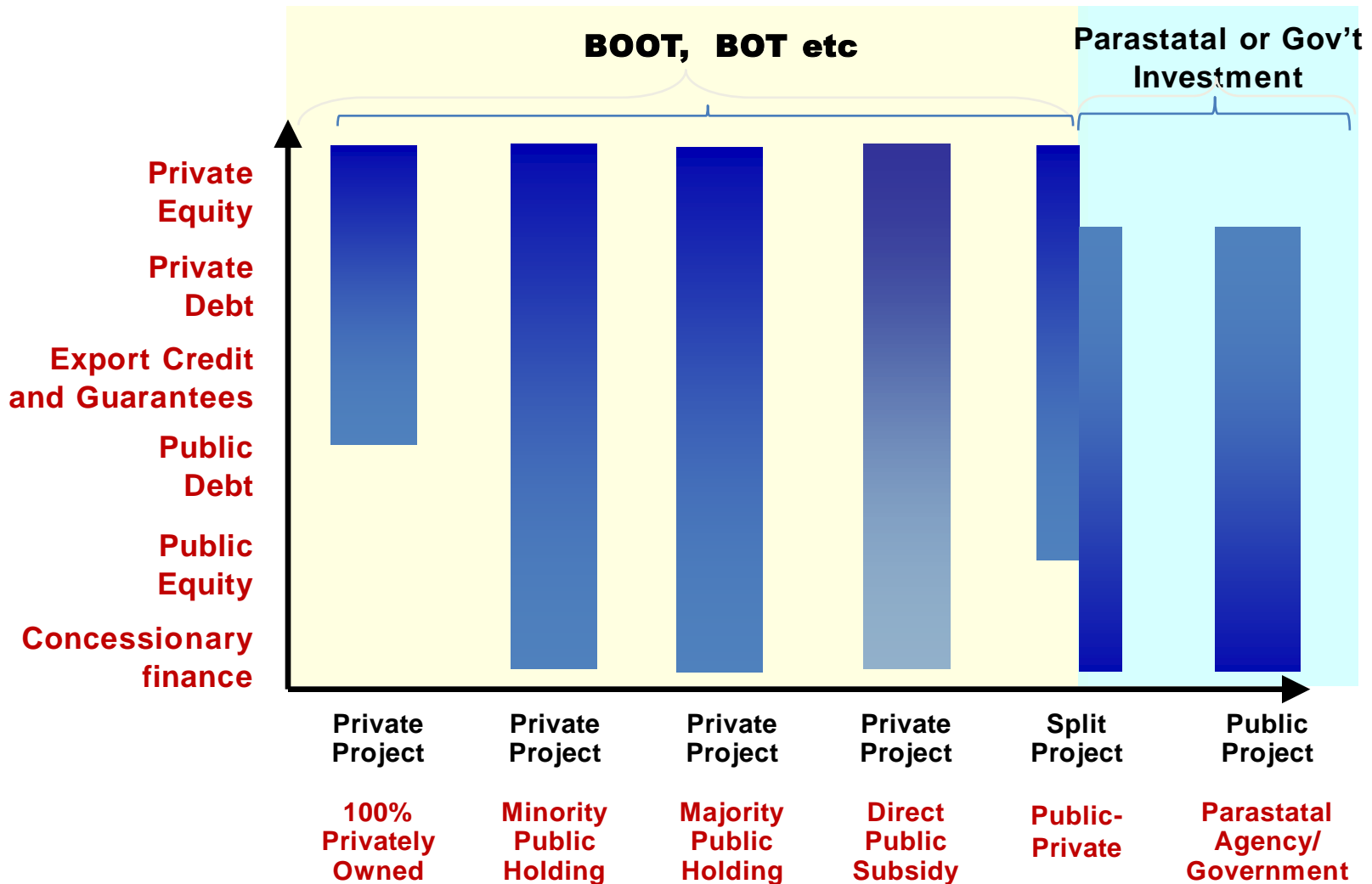
- soft loans, grants
- carbon credits

Or ideally a combination

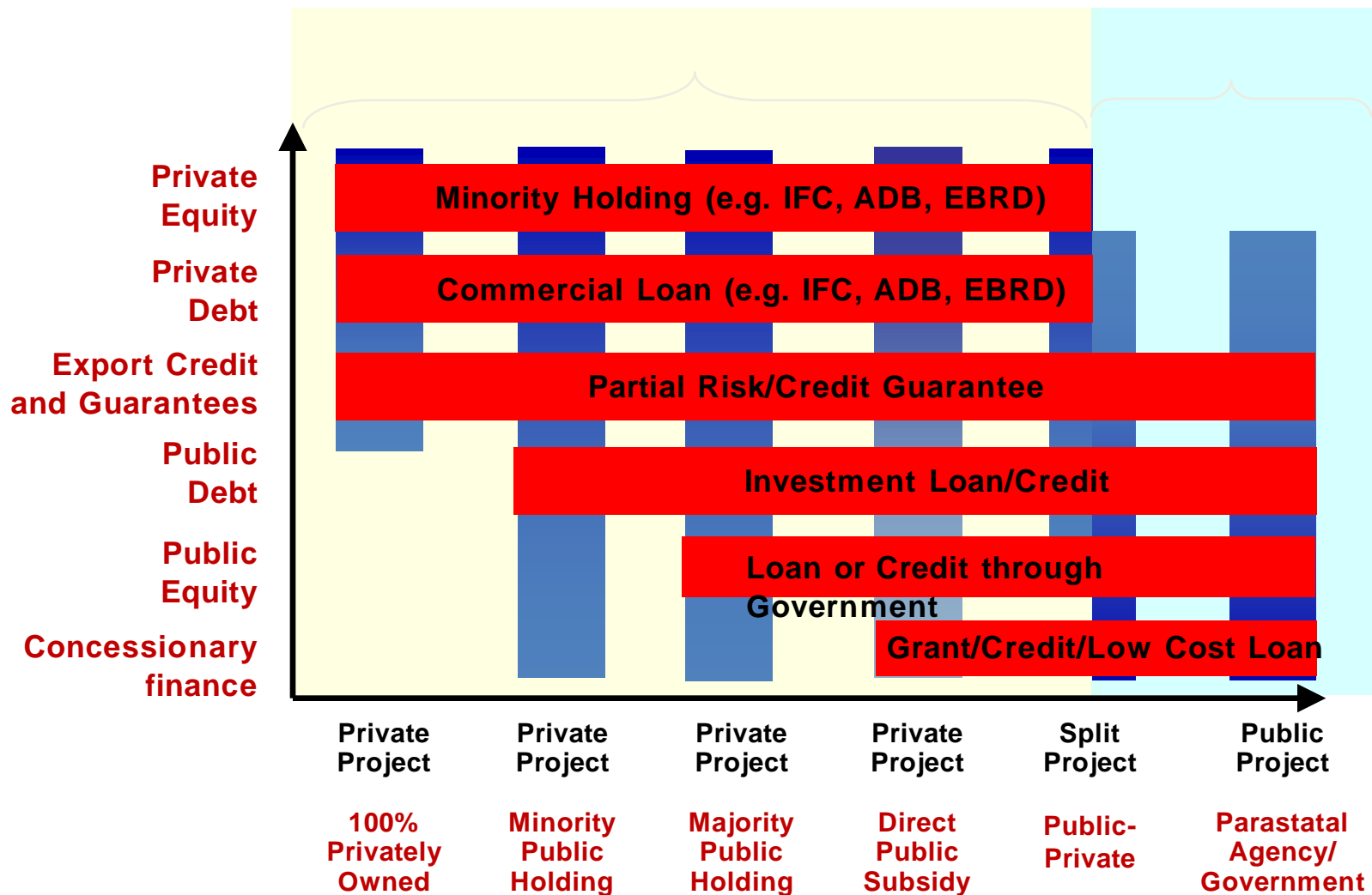
Financing for Different Project Structures



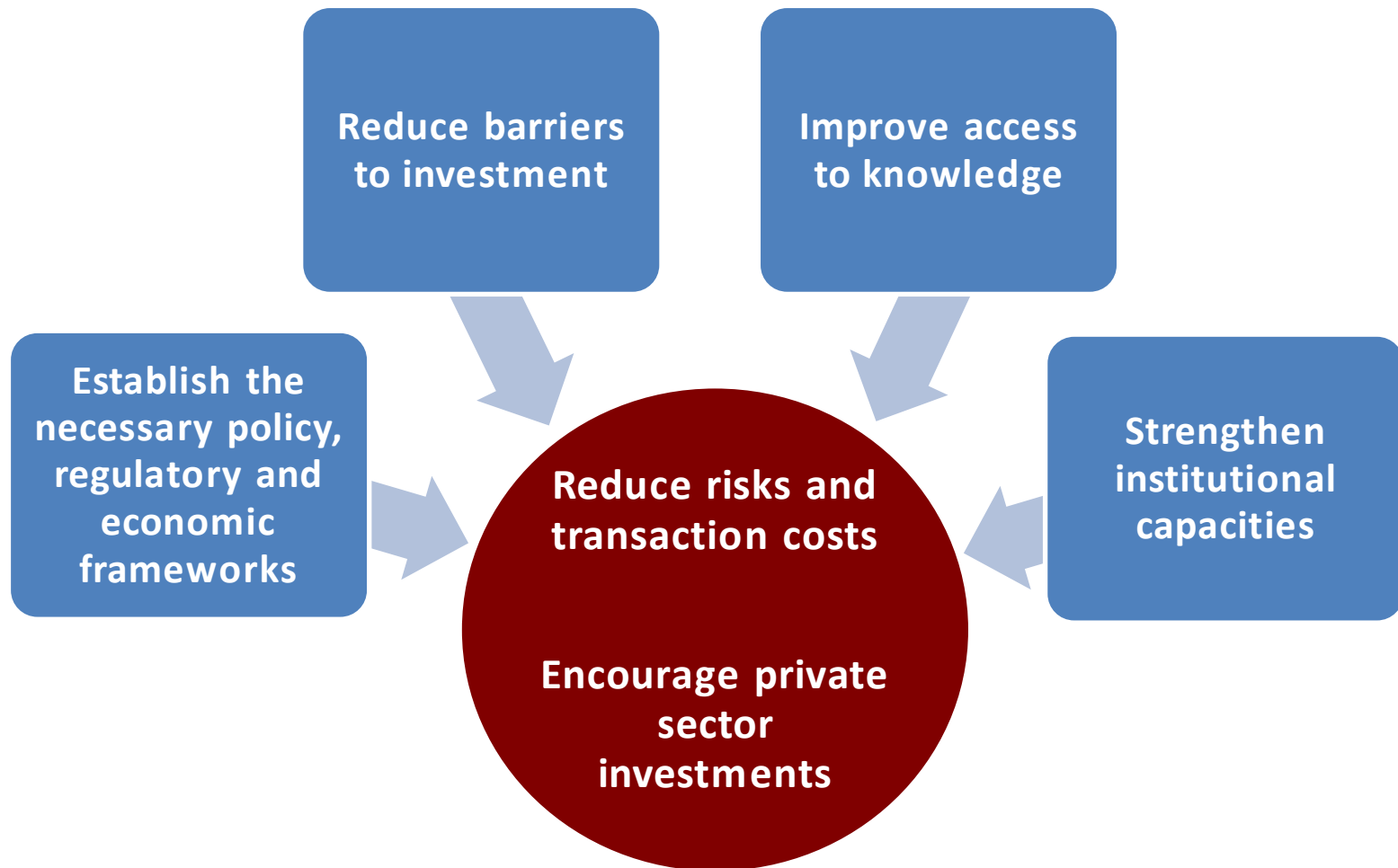
Financing Models



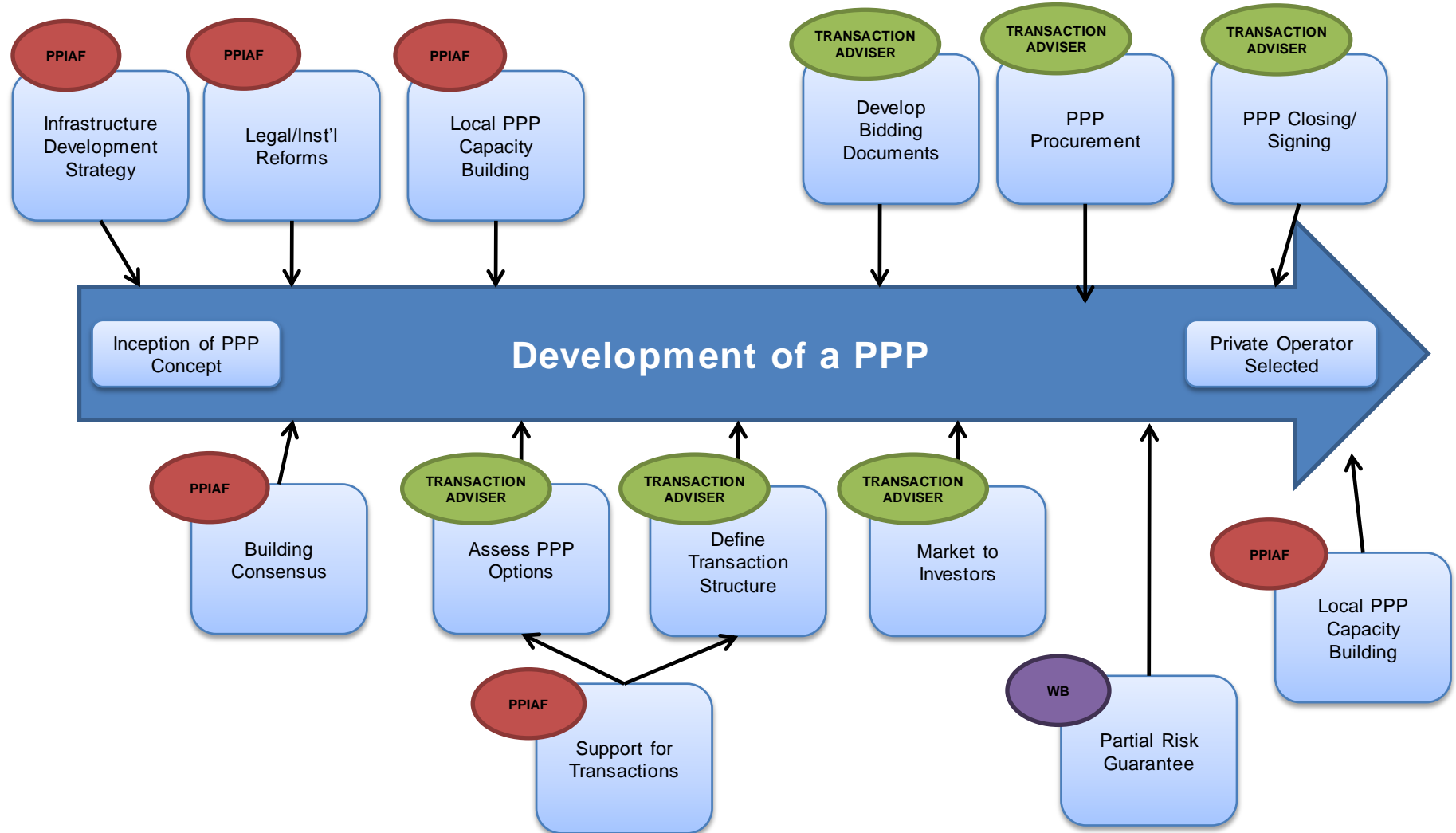
Financing from MDBs and Bilateral Agencies



Creating an Enabling Environment



PPP Development Process: Inception to Implementation



PPIAF Support to Scale-up PSI

Technical Assistance to Governments to Structure PPPs

Enabling Environment Reform

- Policy development
- Legal and regulatory reforms
- PPP options
- Tariff regimes

Project Preparation

- Business plan development
- Pre-feasibility studies
- Preparation of concessions and PPAs
- Negotiations of contracts

Dissemination and Capacity Building

- Awareness building
- Training
- Rapid diagnosis for PPPs

Some Lessons I

The private sector does deliver on higher efficiency and service quality...

- In a world-wide study, for a sample of over 300 electricity and water utilities with private sector participation, the results are that private sector participation leads to greater efficiency and quality of services:
 - Increase in sales per worker
 - Increase in connections per worker
 - Increase in bill collection rates
 - Improvement in distribution losses and unaccounted-for-water
 - but ...a significant decrease in employment
- However, private participation can and has gone very wrong: issues of incomplete contracts, re-negotiation, antagonism between public and private parties
- Lessons learned
 - Strategy
 - Preparation (preparation, preparation!)
 - Supervision

Some Lessons II

- Need for fundamental reforms
 - Should place a clear priority on **sustained growth** in the infra sector
 - **Market reforms:** competition and transparency
 - **Improving business environment:** fostering independent regulatory bodies
 - **Ownership reforms:** corporate governance, role of government
- Success rests not only on the approach to infrastructure but also on the actual activity undertaken, irrespective of public or private
 - Proper risk allocation
 - PPPPPP !!
 - GFC forced a closer look at the tradeoffs between financing and efficiency in PPP models that are not “pure/100% PPPs” and fall into a grey area between public and private
 - Lease affermage, concessions, joint ventures and management contracts

Some Lessons III

Interfaces matter! Both within public sector and between public and private sectors

- **Leadership** of initiative – high level with calling powers
- **Treasury/Finance:** assesses fiscal impact/manages contingent liabilities, approves/modifies terms
- **Inter-ministerial/executive council** (led by Finance): approves policies (risk allocation) & prioritizes projects
- **PPP unit:** monitors PPP program, designs procedures (preparation, procurement, quality), designs contracts, advises/sometimes executes transactions
- **Line ministries:** prioritise within sector, develop pipeline aligning public and private investment program, design and implement projects
- **Oversight body:** oversees compliance w/ concession contract, laws & regulations, approves adjustments
- Dispute resolution framework (**arbitration**)

Some Lessons IV

- Domestic financial markets and financial discipline
 - Need for long-term **domestic financing**
 - Removing the subsidy mentality: foster cost recovery and equity through **tariff reforms**
 - False notions of cost and risk from **distortions** in the infrastructure finance markets
- Management of contingent liabilities
 - **Risk management framework** in developing and approving projects
 - Comprehensive approach to managing contingent and contractual liabilities
- **Foreign exchange** planning and management

Some Lessons V

Getting the priorities right - public and private

- Capital markets development and local currency funding often needed for large-scale infrastructure
- But financial engineering never substitutes for sound project design
- In the end, it is always the taxpayers and users who pay

